Medicare Beneficiary

Grassroots Rights and Protections Outreach Project

for

Vulnerable Populations

The Frail and/or Over-85 Vulnerable Elderly Populations Study

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Introduction

Project Background

The Medicare Beneficiary Grassroots Rights and Protections Outreach Project for Vulnerable Populations was created by the Health Care Financing Administration (HCFA) to seek ways to encourage and strengthen the full participation and inclusion of special needs populations, as equal partners in their own health care and treatment decisions, by promoting greater awareness of their rights and responsibilities and improving access to their rights and protections. In this view, cultural competency, or the ability to effectively communicate information to different cultures in a manner which reflects an understanding of that culture, increases significantly HCFA's ability to provide all its beneficiaries with information about rights and protections in a manner that assures effective communication.

HCFA identified this opportunity for improvement in the delivery of services to vulnerable populations as a result of four recent events: (1) The Presidential Advisory Commission concluded that the needs of our most vulnerable citizens—the poor, the frail elderly, those living with disabilities, the mentally ill, children, low income individuals, minorities and immigrants, non-English speaking consumers, and others—require special attention; (2) The Institute of Medicine's Workshop on Developing the Information Infrastructure for Medicare Beneficiaries that developed information on "Special Needs Populations;" (3) President Clinton's announced program for achieving racial parity in health care; and (4) The Administrator's expressed view that beneficiaries are HCFA's ultimate customers and raison d'etre. This project was designed to help HCFA meet three separate mandates: (1) implementation of the Presidential Advisory Commission's Bill of Rights and Responsibilities; (2) implementation of the Balanced Budget Act's requirements; and (3) implementation of the Secretary's Race and Health Initiative.

For the pilot project, the first populations targeted by HCFA were the Asian Population in the States of Washington, Alaska, and Idaho; the Native Indian and Eskimo Populations in the States of Washington, Alaska, and Idaho; and the Frail and/or Over-85 Vulnerable Elderly Population in the United States. HCFA selected these three pilot studies because HCFA as an agency has little internal information available about these populations.

HCFA identified several deliverables to be performed as part of each study. These deliverables include:

- Bibliography
- Demographic Report
- Report on Support Systems
- Environmental Scan Report
- Recommendations Report on Establishing Information Delivery Networks

PRO-West was selected to administer the Medicare Beneficiary Grassroots Rights and Protections Outreach Project for Vulnerable Populations. PRO-West identified a partner that was already engaged in the study of the population to undertake each of the studies. During the course of the project, PRO-West was responsible for project management, facilitating between the partners, and coordinating with HCFA to assure that the project met HCFA expectations for each study.

Project Team

PRO-West

PRO-West is an independent, private, non-profit organization under contract to the Health Care Financing Administration to assess and improve health care quality for Medicare beneficiaries in Washington, Idaho, and Alaska.

National Asian Pacific Center on Aging

The National Asian Pacific Center on Aging is a non-profit advocacy and membership organization founded in 1979. Headquartered in Seattle, Washington with programs in ten communities around the country, NAPCA is committed to preserving the dignity, well-being, and quality of life of older Asians and Pacific Islanders.

National Indian Council on Aging

The National Indian Council on Aging (NICOA) was formed by a group of tribal chairmen in 1976 and is the primary non-profit advocate for the nation's estimated 200,000 American Indian and Alaska Native elders. NICOA is governed by a 13-member board of directors—all Indian elders—and our mission is to create "improved, comprehensive services for American Indian and Alaska Native elders."

RAND

RAND is a nonprofit institute that helps improve policy and decisionmaking through research and analysis. RAND Health, a research division within RAND, works to improve health care systems and advance understanding of how the organization and financing of care affect costs, quality, and access.

Disclaimer

The analyses upon which this publication is (in part) based were performed as a special project under Contract 500-96-P618. The special project, entitled "Medicare Beneficiary Grassroots Rights and Protections Outreach Project for Vulnerable Populations—The Asian, American Indian and Eskimo Populations in the States of Washington, Idaho and Alaska Study, and the over-85 Medicare/Medicaid National Population Study," is sponsored by the Division of Member Rights and Protections, Health Care Financing Administration, Department of Health and Human Services. For the purposes of this project, the National Asian Pacific Council on Aging (NAPCA), the National Indian Council on Aging (NICOA), and RAND are contractors to PRO-West. During the course of the project, PRO-West was responsible for project management, facilitating between the partners, and coordinating with HCFA to assure that the project met HCFA expectations for each study. The conclusions and opinions expressed and the methods used are those of NAPCA, NICOA, and RAND. They do not necessarily reflect HCFA policy or the opinions and conclusions of PRO-West. NAPCA, NICOA, and RAND assume full responsibility for the accuracy (to the extent under their control) of the ideas presented. This publication is a direct result of the Health Care Quality Improvement Program initiated by HCFA, which has encouraged identification of quality improvement projects derived from analysis of patterns of care. Ideas and contributions concerning experience in engaging with the issues presented here are welcomed by PRO-West. This contract is interpreted and performed in accordance with the HCFA Contracts with PRO-West for Operation of Utilization and Quality Control Peer Review Organizations for the State of Washington (Contract Number 500-96-P618). All clinical and scientific material presented or referenced is intended for informational purposes and is not intended to replace the independent judgment, decision making and research of a health care provider treating a particular patient. Readers are encouraged to confirm the information contained herein with other sources. In view of the possibility of advances in medical knowledge or human error, neither PRO-West, its sponsors, its staff, its agents, its consultants, nor any other party involved in preparing or presenting this information makes representations or warranties, express or implied, with respect to any treatments, decisions, or actions by any person following the information presented or referenced herein. PRO-West will not be liable for any direct, indirect, consequential, special, exemplary, or other damages arising therefrom.

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Annotated Bibliography: Selected Literature on Health and Health Care Issues of the Frail and Oldest Elderly

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CHAPTER 1
INTRODUCTION

This document provides an annotated bibliography on health care issues and characteristics pertaining to the frail and oldest elderly in the United States. It is the third in a series of reports intended to inform the Health Care Financing Administration's (HCFA's) efforts to promote greater awareness and exercise of Medicare rights and responsibilities among beneficiaries made vulnerable by advanced age and/or frailty. Prior reports described the demographic profile of the frail and oldest old in the United States today and the support systems they utilize. Subsequent reports will include a description of effective techniques being used to communicate with members of this population and recommended strategies for communicating about Medicare rights and protections.

The demographic data revealed that 3.9 million Medicare beneficiaries are 85 years of age or older. Another 11.7 million beneficiaries between the ages of 65 and 84 are frail, defined in terms of functional limitation (any difficulty in instrumental activities of daily living (IADL) or activities of daily living (ADL)). By these definitions, over 15 million Medicare beneficiaries are made vulnerable by advanced age and/or frailty. Because most beneficiaries over 85 (81%) report some functional limitation, 95% of this vulnerable population of both frail and oldest old experience some functional difficulty in daily living (Beckett and Pearson, 1999).

The literature on health care and the elderly is extensive. As an example, the MEDLINE and HealthSTAR databases, both exclusively health databases, together have more than 450,000 unique citations indexed under "aged" or its narrower terms for the period 1990 to 1999. While findings applicable to the frail and oldest elderly may be found throughout this literature, we have limited the annotated bibliography to those publications whose titles and abstracts suggest either a clear focus on the frail and oldest old or report a finding specific to frailty or advanced age. We also narrowed the search to four broad aspects of health care which, in different ways, relate to beneficiaries' receipt and use of information: prevalent health-related conditions; utilization of health services; managed care experience; and end-of-life / health communication. The search strategies are described in detail in Chapter 2.

Because of inconsistencies and variation in indexing, this bibliography will not be exhaustive, even within the confines described above. It offers instead an entry into the existing research and a starting point for exploring what is known about the health and health care of elderly persons made vulnerable by frailty and advanced age.

CHAPTER 2
METHODS

LITERATURE SEARCH

The literature searches were specific to each of the four health care topics: prevalent health-related conditions, utilization of health services, managed care, and end-of-life communication. The literature on utilization of health services and managed care experience of the frail and oldest elderly was identified through RAND library searches of electronic databases. The databases, time period, and search strategy for each search are described below. Not all of the terms in the strategy were used in each database; some terms, such as MeSH headings, were unique to specific databases. A hyphen after a term indicates truncation, which requests similar terms with different endings. "Communicat-", for example, searches both "communications" and "communicating." An exclamation point after a term indicates that both the term and its narrower terms were searched. (This feature is referred to as "exploding" in MEDLINE.) The library searches were limited to the English language and publication in the United States. Our search for literature on prevalent health conditions began with an existing project library, as did our search on end-of-life communication.

Databases

Eight databases provided bibliographic information in addition to project libraries. These databases included MEDLINE, HealthSTAR, AgeLine, EMBASE, Social SciSearch, LC MARC-Book, Books in Print, and NTIS. A brief description of each database follows:

MEDLINE (MEDLARS® onLINE), produced by the U.S. National Library of Medicine (NLM), is one of the major sources for biomedical literature. MEDLINE corresponds to three print indexes: Index Medicus™, Index to Dental Literature, and International Nursing Index. Additional materials not published in Index Medicus are included in the MEDLINE database in the areas of communication disorders, and population and reproductive biology. MEDLINE is indexed using NLM's controlled vocabulary, MeSH® (Medical Subject Headings). An online thesaurus is available to aid in locating MeSH descriptors.

HealthSTAR (Health Services Technology, Administration, and Research) is provided cooperatively by the U.S. National Library of Medicine and the American Hospital Association. File 151 incorporates all records from the former Health Planning and Administration database, the HSTAR database, and the printed index Hospital and Health Administration Index. The file is indexed using NLM'S controlled vocabulary, MeSH® (Medical Subject Headings). Abstracts, which are taken directly from the published articles, are included for approximately 60% of the records. Approximately 180,000 records are added per year, of which more than 75% are in English. HealthSTAR contains citations to journal articles, monographs, technical reports, meeting abstracts and papers, book chapters, government documents, and newspaper articles.

The AgeLine database is produced by the American Association of Retired Persons (AARP) and provides bibliographic coverage of social gerontology--the study of aging in social, psychological, health-related, and economic contexts. The delivery of health care for the older population and its associated costs and policies is particularly well covered, as are public policy, employment, and consumer issues. Literature covered is of interest to researchers, health professionals, service planners, policymakers, employers, older adults and their families, and consumer advocates. Journal citations compose roughly two-thirds of the database, with the rest devoted to citations from books, book chapters, and reports. An original, informative abstract accompanies each citation. Documents are indexed using the Thesaurus of Aging Terminology. There is no print equivalent of the database.

EMBASE provides an index of the world's literature on human medicine and related disciplines. About 400,000 records are added annually, in recent years over 80% of which contain abstracts. Each record is classified and indexed by medical research specialists who assign terms and codes in accordance with EMTREE, a highly developed classification schedule and controlled vocabulary, consisting of over 39,000 terms and nearly 170,000 synonyms. In recent years, EMBASE provides access to periodical articles from more than 3,300 primary journals from approximately 70 countries. An additional 450 journals are screened for drug articles.

The Social SciSearch® database is an international, multidisciplinary index to the literature of the social, behavioral, and related sciences, produced by the Institute for Scientific Information (ISI®). Social SciSearch contains all of the records published in the Social Sciences Citation Index. Social SciSearch offers citation indexing, which permits searching by cited references. For records added since March 1991, author keywords and KeyWords Plus™ can also be searched.

The LC MARC-Books database contains complete bibliographic records for all books cataloged by the U.S. Library of Congress since 1968, beginning with books in English and adding coverage of books in other languages from 1970 through 1979.

The Books In Print® database, produced by the R. R. Bowker Company (a Reed Reference Publishing company, a division of Reed Elsevier Inc.), is the most comprehensive source of information on books published in the U.S. The database contains bibliographic records from over 44,000 publishers. These records cover books currently in print and titles about-to-be-published as far as six months in advance, as well as information on titles declared out-of-print or out-of-stock indefinitely since 1979. Books In Print includes all the information in the most current printed editions of the following publications: Books In Print®, Books Out of Print™, Subject Guide to Books In Print™, Books In Print Supplement®, Forthcoming Books™, Books In Series™, Children's Books In Print®, Subject Guide to Children's Books In Print™, Paperbound Books In Print®.

The NTIS: National Technical Information Service database consists of summaries of U.S. government-sponsored research, development, and engineering, plus analyses prepared by federal agencies, their contractors, or grantees. It is the means through which unclassified, publicly available, unlimited distribution reports are made available for sale from agencies such as NASA, DOD, DOE, HUD, DOT, Department of Commerce, and some 240 other agencies. Additionally, some state and local government agencies now contribute summaries of their reports to the database. NTIS also provides access to the results of government-sponsored research and development from countries outside the U.S.

Dissertation Abstracts Online is a definitive subject, title, and author guide to virtually every American dissertation accepted at an accredited institution since 1861. Selected Masters theses have been included since 1962. In addition, since 1988, the database includes citations for dissertations from 50 British universiteies that have been collected by and filmed at The British Document Supply Centre. Beginning with DAIC Volume 49, Number 2 (Sprint 1988), citations and abstracts from Section C, Worldwide dissertations (formerly European Dissertations), have been included in the file.

Search Strategy: Prevalent Conditions

Number of abstracts reviewed: 420

Number of articles selected: 171

We began this search with the literature on prevalent conditions collected by the Evidence-Based Practice Center for the Assessing the Care of Vulnerable Elders (ACOVE) project. We reviewed the titles and abstracts of 213 articles selected by ACOVE researchers (from search results of more than 345 citations) for use in their selection of study conditions. We then selected additional articles from references in the ACOVE documents on *Assessing the Care of Vulnerable Elders: Potential Quality Indicators and Literature Review* for each of their study conditions: ischemic heart disease (Budoff 1999); malnutrition (Reuben 1999); osteoporosis (Grossman 1999); pain management (Chodosh 1999); pressure ulcers (Bates-Jensen 1999); urinary incontinence (Schnelle and Smith, 1999); hypertension (Brousseau 1999); stroke (Golomb 1999); osteoarthritis (MacLean 1999); end of life (Wenger and Rosenfeld, 1999); depression (Nakajima and Wenger, 1999); pneumonia (Rhew 1999); appropriate medication use (Knight and Avorn, 1999); diabetes mellitus (Shekelle 1999); dementia (Chow 1999); congestive heart failure (Fonarow 1999); screening and prevention (Rhew 1999); vision care (Rowe 1999); falls and mobility problems (Rubenstein and Powers, 1999); and hearing loss (Shapiro 1999).

Search Strategies: Utilization of Health Services

Number of abstracts reviewed: 395

Number of articles selected: 149

Search #1:

Databases searched:

MEDLINE
HealthStar
AgeLine
EMBASE
Social Science Citation Index

Time period covered: 1993–1999 (HealthStar, AgeLine, Social Science Citation Index); 1997–1999 (MEDLINE, EMBASE)

Search strategy:
"AGED, 80 AND OVER" OR "AGED" OR "SENSCEN-"OR "OCTAGEN-" OR "NONAGENARIAN-" OR "CENTENARIAN-" OR "FRAIL ELDERLY" OR "VULNERABLE ELDERLY" OR "OLDEST OLD" OR "ELDERLY" OR "VERY OLD"

AND

"UTILIZ-"

Search #2:

Databases searched:

LC MARC - BOOKS
BOOKS IN PRINT

Time period covered: 1990–1999

Search Strategy:
“OLDEST OLD” OR “VERY OLD” OR “FRAIL ELDERLY” OR VULNERABLE ELDERLY” OR “AGED”

AND

“UTILIZ-” OR “MANAGED CARE” OR “HMO-” OR “HEALTH MAINTENANCE” OR “INSURANCE” OR “REIMBURS-”

Search #3:

Databases searched:
NTIS

Time period covered: 1990–1999

Search strategy:
“AGED” OR “OLDEST OLD” OR “FRAIL ELDERLY” OR “VULNERABLE ELDERLY”

AND

“UTILIZ-” OR “MANAGED CARE” OR “HMO-” OR “HEALTH MAINTENANCE” OR “PREFERRED PROVIDER-” OR “PPO-“ OR “INSUR-” OR “REIMBURS-” OR “RIGHT-” OR “PROTECT-” OR “DENY” OR “DENIAL” OR “GRIEVANCE”

Search #4

Databases searached:
Dissertation Abstracts

Time period covered: 1990–1999

Search strategy:
“FRAIL ELDERLY” OR “VULNERABLE ELDERLY” OR “OLDEST OLD”

Search Strategies: Managed Care

Number of abstracts reviewed: 138

Number of articles selected: 60

Search #1:

Databases searched:
MEDLINE
HealthStar
AgeLine
EMBASE
Social Science Citation Index

Time period covered: 1993–1999

Search strategy:
"AGED, 80 AND OVER" OR "85+" OR "90+" OR "AGED" OR "SENSCEN-" OR "OCTAGEN-" OR "NONAGENARIAN-" OR "CENTENARIAN-" OR "FRAIL ELDERLY" OR "VULNERABLE ELDERLY" OR "OLDEST OLD" OR "ELDERLY" OR "VERY OLD"

AND

"MANAGED CARE" OR "MANAGED CARE PROGRAMS!" OR "MANAGED CARE!" OR "HEALTH MAINTENANCE ORGANIZATION-" OR "HMO-" OR "PREFERRED PROVIDER ORGANIZATION-"

Searches #2–4

under Search Strategies: Utilization of Health Services (see pages 5–6)

Search Strategy: End-of-Life/Health Communication

Number of abstracts reviewed: 93

Number of articles selected: 57

The end-of-life communications bibliography was based on a review of the literature collected and reviewed in doctoral research on end-of-life and cancer care communications in the Department of Community Health Sciences, UCLA School of Public Health.

LITERATURE SELECTION

The search review process was similar for all four areas. The searches resulted in lists of titles. We reviewed these titles and requested full citations, abstracts, and descriptors for those that looked pertinent. We then reviewed the abstracts and selected the citations for inclusion in the bibliography. We selected those citations whose abstract indicated a focus, sample, or finding relevant to persons of advanced age, frail elderly (including physical limitations, cognitive limitations, or multiple chronic conditions), nursing home residents, elderly home health care recipients, or caregivers to the elderly. Full citations and abstracts were required for inclusion.

ANNOTATED BIBLIOGRAPHY

The bibliography is organized into four sections defined by these searches. All citations selected from the results of the utilization search, for example, are included in the utilization bibliography. Due to variations in indexing, some citations were identified that might well have been grouped under the heading of another search, e.g., articles on the frail elderly and managed care identified in the utilization search. These citations were left with the search which originally identified them. The standard citation, abstract, and keywords, as provided by the electronic database, are provided for each article.

Frail Elderly and Over 85 — Demographic Report
RAND
1999

CHAPTER 3
INTRODUCTORY CONSIDERATIONS

This bibliography provides a point of entry into the literature on health care for the frail and oldest elderly in the United States. The following considerations offer a beginning context for approaching the health care issues and concerns of critical importance to this population.

Health Conditions: *The prevalence of disease and impairment is high in the elderly, particularly in the frail and oldest old.*

The elderly shoulder a disproportionate share of the burden of disease in society. Many of these conditions, in turn, contribute to or define frailty within the elderly. Table 1 shows the prevalence of selected conditions reported by respondents to the National Health Interview Survey (NHIS) in 1990, 1991, and 1992. The NHIS is a nationwide survey administered by the U.S. Bureau of the Census of a probability sample of civilian noninstitutionalized population of the United States (Collins 1997). Heart disease, high blood pressure, deafness and hearing impairments, and arthritis are particularly prevalent (rate >20/100).

Table 1 presents prevalent conditions which also cause limitation of major or outside activities in a sizable percent of persons affected with the condition. The activities of almost 25% of all people with heart disease, for example, are limited by the disease. Other conditions which cause 20% or more patients to limit activities include cerebrovascular disease, speech impairments, deformities or orthopedic impairments, arthritis, and diabetes. The stress and burden of the disease itself as well as its effect on activities and physical functioning can be expected to impact information seeking behavior, as well as health care activities. In the case of specific conditions such as vision and hearing impairment, methods of communication are impacted.

Table 2 shows the elderly disease burden using Medicare Current Beneficiary Survey (MCBS) data on all Medicare beneficiaries and the subgroup of long term care facility residents in 1994. The MCBS is a longitudinal survey of a nationally representative sample of the aged and disabled persons sponsored by the Health Care Financing Administration. Again we see that the prevalence of many of these serious conditions is high in the elderly, particularly the oldest elderly. Heart disease, osteoporosis or broken hip, stroke, Alzheimer's disease, mental disorder, and urinary incontinence are very prevalent among nursing home residents.

The high prevalence of such conditions in the elderly means that their health care needs are great at the same time that their ability to seek and utilize health care information may be diminished by the disease burden they need help with. Moreover, much of their illness is chronic. The elderly have a particular need for ongoing chronic care.

Table 1
SELF-REPORTED PREVALENCE OF SELECTED CHRONIC CONDITIONS BY AGE IN U.S. CIVILIAN NONINSTITUTIONALIZED POPULATION

Chronic Condition	RATE PER 100 PERSONS All Ages	ELDERLY 65-74 Years	 75 Years and Over	Condition Causes Limitation of Major or Outside Activities in the Following % of Persons Affected (All Ages)
Heart disease	8.24	26.20	36.49	24.7
High blood pressure	11.10	36.43	36.98	10.6
Cerebrovascular disease	1.21	5.79	8.08	35.9
Blindness and other visual impairments	3.28	5.98	11.06	15.8
Deafness and other hearing impairments	9.35	26.26	41.03	5.5
Speech impairments	1.10	0.04	1.59	20.4
Deformities or orthopedic impairments	14.06	20.35	24.22	25.2
Glaucoma	0.98	4.33	6.77	13.4
Cataracts	2.58	12.21	22.90	6.1
Arthritis	12.78	43.30	55.00	21.2
Diabetes	2.80	10.67	9.28	34.7

SOURCE: Collins JG. Prevalence of selected chronic conditions: United States, 1990-1992. National Center for Health Statistics. Vital and Health Statistics 10 (194) 1997. Tables 1, 22, 29, and 36.

Table 2
SELF-REPORTED PREVALENCE OF HEALTH CONDITIONS BY AGE AND RESIDENCE IN MEDICARE BENEFICIARIES: 1994

	RATE PER 100 PERSONS					
	ALL MEDICARE BENEFICIARIES (N = 34,016,000)			LONG-TERM CARE FACILITY RESIDENTS ONLY (N = 1,765,000)		
Condition	**65-74**	**75-84**	**85+**	**65-74**	**75-84**	**85+**
# of Chronic Condition						
None	14.3	7.7	4.8	6.5	2.6	1.2
One	21.1	15.5	8.6	10.6	5.0	4.0
Two or more	64.6	76.7	86.6	83.0	92.4	94.9
Specific Condition						
Heart disease	33.9	45.3	51.8	52.2	57.5	67.8
Hypertension	52.4	57.1	54.4	46.2	44.0	39.5
Diabetes	17.8	18.8	13.1	26.7	21.1	12.1
Arthritis	56.3	64.4	63.8	19.5	37.3	44.0
Osteoporosis/broken hip	10.9	17.1	29.3	20.5	32.7	43.8
Pulmonary disease	14.4	15.6	12.4	17.9	14.4	12.2
Stroke	9.0	15.0	21.3	37.4	42.1	34.8
Alzheimer's disease	1.5	6.1	19.2	32.7	53.7	57.1
Parkinson's disease	1.0	2.7	3.5	10.6	7.5	6.5
Skin cancer	15.2	20.0	17.8	2.1	6.2	5.8
Other type of cancer	18.1	22.6	21.9	12.4	22.5	19.8
Mental Disorder	4.5	4.9	7.6	45.9	28.1	18.6
Urinary Incontinence	16.3	24.1	45.2	54.5	72.1	78.9

SOURCE: Olin, Gary L., and Hongji Liu. 1998. *Health & Health Care of the Medicare Population: Data from the 1994 Medicare Current Beneficiary Survey*. Rockville, MD: WESTAT. Tables 2.2 and 2.6b.

Utilization: *The frail and oldest elderly are in frequent contact with health care providers.*

This high prevalence of numerous conditions translates into the elderly being major utilizers of health care. Table 3 shows utilization of health services among the subgroups of Medicare beneficiaries without functional limitation, with some functional limitation, and aged 85 or older in MCBS community resident data. Over one quarter of both the frail and oldest old groups of beneficiaries have one or more inpatient hospital stays per year. Over 95 percent of both groups use at least one physician or supplier service per year and close to 90 percent take at least one prescribed medication. MCBS data on all Medicare beneficiaries show that 1 percent of beneficiaries without functional limitation, 18% of those with some functional limitation, and 34% of those 85 or older have at least one short- or long-term facility stay (Olin and Liu 1998, Tabulations performed at RAND based on 1994 Medicare Current Beneficiary Survey Tables 2.1 and 3.6).

Table 3
UTILIZATION OF INPATIENT AND OUTPATIENT SERVICES AMONG NONINSTITUTIONALIZED OLDEST OLD AND FRAIL MEDICARE BENEFICIARIES: 1994
(numbers in thousands)

	Not Frail[a] (All Ages) (N = 20,259)	Frail[b] (All Ages) (N = 15,931)	Oldest Old (85+) (N = 2,957)
	%	%	%
At least one inpatient hospital stay	11.3	27.8	27.9
At least one outpatient hospital visit	55.7	67.7	59.1
At least one physician/supplier service	91.2	95.7	95.9
At least one dental service	44.9	31.5	28.1
At least one prescribed medicine	81.3	90.6	87.2

Sources: Tabulations performed at RAND based on 1994 Medicare Current Beneficiary Survey (Olin and Liu 1998: Tables 2.5a, 3.1, 3.2, 3.3, 3.4, 3.5).

[a] No functional limitation

[b] Some functional limitation

Managed Care: *Frailty and advanced age predict less Medicare managed care enrollment.*

Medicare managed care enrollees have tended to be younger and less frail than fee-for-service beneficiaries (Morgan, Virnig, DeVito, et al. 1997; Bierman, Banthin, Altman, 1998). While the frail and older elderly have been less likely to enroll in Medicare managed care, the literature suggests opportunities in managed care for improving care for the conditions prevalent among the frail and oldest old. In particular, the managed care structure is portrayed as more conducive to case management, continuity of care, patient self-management, population-based care, follow-up, and preventive care – all seen as critical elements of health care for chronically ill (Doyle and Masland, 1997; Phillips-Harris 1998). The opportunities within managed care for a population-based focus also raise expectations for improved models of primary care for important subpopulations such as nursing home residents and home care recipients (Fama and Fox, 1997; Farley, Zellman, Ouslander, et al., 1999).

End-of-Life / Health Communication: There is much yet to learn about effective communication with frail and very old patients, even in such researched areas as cancer and end-of-life communication.

The effectiveness of health care depends largely on the communication skills and competencies of health care providers and patients. Effective communication is essential for competent medical practice, health care delivery, and preventive medical strategies (Unoh, 1987). Medical outcomes dependent on effective communication include effective diagnosis and treatment processes, patient compliance, satisfaction and perceptions of positive medical outcomes (Cline, 1983). Physician-patient communication research suggests that ineffective communication frequently results in noncompliance or non-adherence to medical regimens, doubtfulness of physician competency, increased recovery time, and increased patient malpractice suits (Gordon, 1995). Whether or not these or other outcomes are applicable to the frail and old elderly needs further investigation.

The frail and oldest elderly have an increased need for clear communication due to age-related declines that may occur in the cognitive resources necessary for comprehension and memory. Age-related declines may also occur in auditory discrimination and result in difficulty hearing speech at low volume levels or speech embedded in noise (Morrow, 1997). For a chronically ill population, effective physician-patient communication must include transfer of sufficient information to permit the correct implementation of a treatment regimen (Kaplan, 1989). However, the literature indicates that older adults may be less likely to receive complete health-care messages. Health care professionals often may assume the frail and old elderly are unable to understand complex messages and may communicate differently with the old elderly by using over simplified messages with slower speech rates, exaggerated intonation, repetition and simplified words and syntax. Older adults may perceive this type of communication as patronizing which may affect their compliance and satisfaction with the medical encounter (Morrow, 1997).

A significant portion of the health communication literature examines physician-older patient communication but focuses on the young-old with chronic, but life threatening, conditions such as cancer. Other communication studies have explored physician-older patient communication about end-of-life care within a nursing home or hospitalized setting. These bodies of research commonly examine the prevalence of discussions between physicians and patients about end-of-life care including advance directives and resuscitation preferences. These studies have identified preferred channels and patterns of communication between physician, patient, and family members about end-of-life care; concordance between physician, patient and/or family members about end-of-life care; and barriers to effective end-of-life care communication.

Communication between physicians and the frail and old elderly has not received sufficient attention needed to adequately identify and evaluate its effectiveness in achieving goals of patient care. Even within researched areas such as cancer and end-of-life communication there is much to be learned about communication with the frail and old elderly. Future research in this field should explore communication expectations of the frail and old elderly, identify effective techniques to communicate with an older frail population and seek to understand the positive and negative health outcomes of effective provider-older patient communication.

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PREVALENT CONDITIONS

Author: Abbasi AA, Rudman D
Title: Observations on the prevalence of protein-calorie undernutrition in VA nursing homes
Journal: Journal of the American Geriatrics Society
Year: 1993 Feb
Volume: 41
Number: 2
Pages: 117-121
Notes: Malnutrition
Abstract: OBJECTIVE: To determine the prevalence of underweight and hypoalbuminemia in Veterans Affairs nursing home residents and the frequency with which physicians, nurses, and dietitians documented their awareness of the presence of underweight and hypoalbuminemia. DESIGN: Retrospective survey of medical records. SETTING: Twenty-six Department of Veterans Affairs nursing homes located in the Department's Central Region. PATIENTS: 2811 residents. MAIN OUTCOME MEASURES: (1) Prevalence of underweight (defined as body weight less than 80% of standard) and hypoalbuminemia (defined as serum albumin less than 3.5 g/dl); (2) frequency with which physicians, nurses, and dietitians documented the prevalence of underweight and hypoalbuminemia in the records. RESULTS: Three hundred thirty-two (11.8%) of the patients were underweight and 772 (27.5%) were hypoalbuminemic. The prevalence of the two conditions varied widely across nursing homes. The prevalence of low serum albumin ranged from 5% to 58% in the 26 institutions, and the prevalence of body weight less than 80% of standard ranged from 2% to 20%. In the Region as a whole, the dietician's notes in the medical charts mentioned underweight in an average of 95% of affected cases but mentioned the suboptimal albumin level in only 82% of the hypoalbuminemic individuals. In the nurses's notes, these figures were only 80% and 45%, respectively, and in the physician's notes, only 62% and 46%, respectively. The frequency of documented awareness of underweight and hypoalbuminemia by nurses and physicians varied tremendously across the 26 facilities (as few as 7% of the undernourished cases in one nursing home, 100% of the affected individuals in another). CONCLUSIONS: This study showed a high prevalence of calorie and protein undernutrition in the nursing home residents of VA nursing homes, wide variation in the prevalence across nursing homes, and frequent lack of documentation of these nutritional deficiencies by physicians and nurses.
Keywords: Hospitals, Veterans; Nursing Homes; Protein-Energy Malnutrition--epidemiology; Serum Albumin; Thinness--epidemiology; Other Subjects (MeSH): Nutritional Status; Protein-Energy Malnutrition--diagnosis; Retrospective Studies; Thinness--diagnosis; United States; Limits: Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Abbasi AA, Rudman D
Title: Undernutrition in the nursing home: prevalence, consequences, causes and prevention
Journal: Nutrition Reviews
Year: 1994 Apr
Volume: 52
Number: 4
Pages: 113-122
Notes: Malnutrition
Abstract: Approximately 5% of Americans over age 65, or 1.5 million individuals, currently reside in the nation's 20,000 nursing homes. The authors present material that lead to three conclusions about this population. First, nutritional deficiencies are common underlying causes of adverse clinical outcomes. Second, nutritional deficiencies are frequently not recognized. Third, opportunities for preventing or correcting undernutrition exist, provided that the significant and reversible nature of the nutrient deficiencies are identified.
Keywords: Eating Disorders--complications; Homes for the Aged; Nursing Homes; Protein-Energy Malnutrition--epidemiology; Protein-Energy Malnutrition--etiology; Other Subjects (MeSH): Body Mass Index; Eating Disorders--therapy; Nutritional Status; Prevalence; Protein-Energy

Malnutrition--prevention & control; Chicago--epidemiology; Limits: Aged; Human

Author: Auerswald KB, Charpentier PA, Inouye SK
Title: The informed consent process in older patients who developed delirium: a clinical epidemiologic study
Journal: American Journal of Medicine
Year: 1997 Nov
Volume: 103
Number: 5
Pages: 410-418
Notes: Hospitalization
Abstract: PURPOSE: Delirium, defined as an acute, fluctuating disorder of attention and cognition, is a serious and increasingly common problem for hospitalized older persons. Delirium poses unique ethical challenges for the informed consent process, notably the preservation of patient autonomy in the face of potentially fluctuating decision-making capacity. To clarify these issues, we examined the informed consent process in a group of hospitalized older patients who developed delirium. PATIENTS: Eighty-four hospitalized patients aged >70 years who developed delirium during hospitalization at a large urban teaching hospital. METHODS: We conducted a clinical epidemiologic investigation of informed consent in 173 medical and surgical procedures performed in 84 patients. Clinical researchers carried out detailed cognitive evaluation of patients on or near the consent date. A separate blinded researcher extracted medical record information on the procedures and informed consent process variables. RESULTS: Of 173 procedures, 33 (19%) had no documentation of any consent, and 34 (20%) used surrogate consent. There were no documented assessments of competency/ decisional capacity; cognitive assessments were done in 7 (4%) cases, and legal consults in 2 (1%) cases. Discussion of potential risks of the procedure with patient or surrogate were documented in 61 (35%) cases. In multivariable analysis, independent predictors for failure to obtain consent were presence of delirium (adjusted odds ratio [OR] = 2.7, 95% confidence interval [CI] 1.3, 5.3) and less invasive procedure (OR = 5.0, CI 2.0, 12.8). Although cognitive impairment predicted surrogate use, we found that 47% of cases with substantial impairment did not involve use of a surrogate, whereas surrogates signed for 4% of cases with normal mental status near the time of consent. CONCLUSIONS: Our results highlight the ethical challenges that delirium poses for the informed consent process, including the high rate of no consent, lack of cognitive and decisional capacity assessment, and inconsistent surrogate use.
Keywords: Delirium; Informed Consent; Other Subjects (MeSH): Cognition; Delirium--psychology; Hospitalization; Multivariate Analysis; Odds Ratio; Predictive Value of Tests; Severity of Illness Index; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Bayer AJ, Chadha JS, Farag RR, Pathy MS
Title: Changing presentation of myocardial infarction with increasing old age
Journal: Journal of the American Geriatrics Society
Year: 1986 Apr
Volume: 34
Number: 4
Pages: 263-266
Notes: Ischemic Heart Disease
Abstract: The symptoms associated with acute myocardial infarction in a series of 777 elderly hospitalized patients are reviewed. Their ages ranged from 65 to 100, with a mean of 76.0 years. The spectrum of presentation changed significantly with increasing age. Chest pain or discomfort were less frequently reported, although present in the majority of patients up to 85 years. Syncope, stroke, and acute confusion became more common and were often the sole presenting symptom. Shortness of breath, although the most frequently reported symptom in the absence of chest pain, was equally common at all ages. Thus, in patients aged 85 years or over, "atypical" presentation of myocardial infarction became the rule, and in the very old the clinician must be prepared to screen for the diagnosis in most acutely ill patients.

Keywords: Aging; Myocardial Infarction--physiopathology; Other Subjects (MeSH): Geriatrics; Hospitalization; Medical Records; Myocardial Infarction--diagnosis; Limits: Aged; Human

Author: Bergstrom N, Braden B
Title: A prospective study of pressure sore risk among institutionalized elderly
Journal: Journal of the American Geriatrics Society
Year: 1992 Aug
Volume: 40
Number: 8
Pages: 747-758
Notes: Pressure Ulcers
Abstract: OBJECTIVE: To determine if dietary intake, nutritional status, and other physical markers are risk factors for the development of pressure sores in the elderly. DESIGN: Cohort study. SETTING: 250-bed skilled nursing facility with 90 extended care beds in which the average length of stay is 28 days. PATIENTS: Two hundred newly admitted residents (70% female, 95% Caucasian) who were over age 65, estimated to stay greater than 10 days, at risk for pressure sore development (Braden Scale score less than or equal to 17) but free of existing pressure sores were studied for 12 weeks or until discharge. MEASURES: Skin assessment, Braden Scale score, blood pressure, body temperature, anthropometrics, and dietary intake were studied weekly. CBC, serum albumin, serum total protein, serum iron, iron binding capacity, serum zinc and copper, and serum vitamin C were studied weekly for 4 weeks and biweekly for 8 weeks. MAIN OUTCOME MEASURES: Presence/absence and stage of pressure sores. MAIN RESULTS: Stage I pressure sores developed in 70 (35%) and Stage 2 or worse in 77 (38.5%) residents. Subjects who developed pressure sores were older (P less than 0.001) and had lower systolic and diastolic blood pressure (P less than 0.001) and higher body temperature (P less than 0.001) than those without pressure sores. Dietary intake of all nutrients was lower among subjects who developed pressure sores. Using logistic regression, the best predictors or pressure sore development were the Braden Scale score, diastolic blood pressure, temperature, dietary protein intake, and age. CONCLUSIONS: Risk assessment is recommended upon admission to a nursing home and weekly for the first month. Risk status can be effectively predicted by using the Braden Scale in combination with knowledge of age, blood pressure, temperature, and dietary protein intake.
Keywords: Decubitus Ulcer--epidemiology; Geriatric Assessment; Nursing Assessment; Other Subjects (MeSH): Age Factors; Anthropometry; Blood Pressure; Body Temperature; Decubitus Ulcer--etiology; Decubitus Ulcer--nursing; Diet Surveys; Dietary Proteins--analysis; Length of Stay--statistics & numerical data; Nursing Homes; Nutrition Assessment; Predictive Value of Tests; Prospective Studies; Risk Factors; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Bergstrom N, Braden B, Kemp M, Champagne M, Ruby E
Title: Multi-site study of incidence of pressure ulcers and the relationship between risk level, demographic characteristics, diagnoses, and prescription of preventive interventions
Journal: Journal of the American Geriatrics Society
Year: 1996 Jan
Volume: 44
Number: 1
Pages: 22-30
Notes: Pressure Ulcers
Abstract: OBJECTIVE: To determine the incidence of pressure ulcers in varied populations, and whether demographic characteristics (age, gender, race) and primary diagnosis are factors in pressure ulcer development when the level of risk for developing ulcers is considered. To determine if there is a difference in the type of preventive services prescribed for persons who do or do not develop pressure ulcers when risk is controlled and whether differences can be related to demographic characteristics. DESIGN: Cohort study. SETTING: Two skilled nursing homes, two university operated tertiary care hospitals, and two Veteran's Administration Medical Centers (VAMCs) in Omaha, NE, Durham, NC, and Chicago, IL. PATIENTS: A total of 843

randomly selected patients more than 19 years of age who did not have pressure ulcers on admission to their place of care. Subjects were 63% male, 79% white, and had a mean age of 63 (+/- 16) years. MEASURES: A head-to-toe skin assessment for pressure ulcers recording site and stage of ulcers, scores for the Braden Scale for Predicting Pressure Sore Risk, demographic characteristics (age, sex, race), and primary diagnosis and preventive interventions (turning or repositioning orders and pressure reduction surface) were documented on the patient record. Observations were made every 48 to 72 hours for a minimum of 1 to a maximum of 4 weeks. MAIN OUTCOME MEASURES: Presence/absence and stage of pressure ulcers. MAIN RESULTS: One hundred eight of 843 (12.8%) subjects developed pressure ulcers. The incidence was 8.5%, 7.4%, and 23.9% in tertiary care, VAMCs, and nursing homes, respectively. Logistic regression demonstrated that lower Braden Scale scores, older age and white race predicted pressure ulcers; gender was not predictive. Primary diagnoses were not significant predictors of pressure ulcer risk when the Braden Scale score was entered into the regression. Prescription of turning was predicted by Braden Scale scores and by white race, whereas prescription of pressure reduction was predicted by Braden Scale scores, white race, and female sex. CONCLUSIONS: Risk assessment, rather than diagnoses or demographic characteristics, is recommended as the basis for prescriptive decisions. Risk assessment should cue health care providers to make more judicious use of turning and support surfaces to prevent pressure ulcers. Persons who are at risk for pressure ulcers should have turning and pressure reduction surfaces consistently prescribed and implemented. The costs and goals of preventive prescription for those not at risk for pressure ulcers should be considered.

Keywords: Decubitus Ulcer--epidemiology; Other Subjects (MeSH): Cardiovascular Diseases--complications; Chi-Square Distribution; Cohort Studies; Decubitus Ulcer--diagnosis; Decubitus Ulcer--etiology; Decubitus Ulcer--prevention & control; Incidence; Logistic Models; Neoplasms--complications; Posture; Racial Stocks; Random Allocation; Risk Factors; Sex Distribution; United States--epidemiology; Limits: Adult; Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Berkman LF, Seeman TE, Albert M, Blazer D, Kahn R, Mohs R, Finch C, Schneider E, Cotman C, McClearn G, et al.
Title: High, usual and impaired functioning in community-dwelling older men and women: Findings from the MacArthur Foundation Research Network on Successful Aging
Journal: Journal of Clinical Epidemiology
Year: 1993 Oct
Volume: 46
Number: 10
Pages: 1129-1140
Notes: Elderly Epidemiolog
Abstract: The objective of this study is to determine the range of complex physical and cognitive abilities of older men and women functioning at high, medium and impaired ranges and to determine the psychosocial and physiological conditions that discriminate those in the high functioning group from those functioning at middle or impaired ranges. The subjects for this study were drawn from men and women aged 70-79 from 3 Established Populations for the Epidemiologic Study of the Elderly (EPESE) programs in East Boston MA, New Haven CT, and Durham County NC screened on the basis of criteria of physical and cognitive function. In 1988, 4030 men and women were screened as part of their annual EPESE interview. 1192 men and women met criteria for "high functioning". Age and sex-matched subjects were selected to represent the medium (n = 80) and low (n = 82) functioning groups. Physical and cognitive functioning was assessed from performance-based examinations and self-reported abilities. Physical function measures focused on balance, gait, and upper body strength. Cognitive exams assessed memory, language, abstraction, and praxis. Significant differences for every performance-based examination of physical and cognitive function were observed across functioning groups. Low functioning subjects were almost 3 times as likely to have an income of < or = $5000 compared to the high functioning group. They were less likely to have completed high school. High functioning subjects smoked cigarettes less and exercised more than others. They had higher levels of DHEA-S and peak expiratory flow rate. High functioning elders were more likely to engage in volunteer activities and score higher on scales of self-

efficacy, mastery and report fewer psychiatric symptoms.

Keywords: Activities of Daily Living; Cognition; Geriatric Assessment; Mass Screening; Other Subjects (MeSH): Cohort Studies; Educational Status; Exercise; Income; Internal-External Control; Matched-Pair Analysis; Peak Expiratory Flow Rate; / Prasterone--blood; Self Concept; Smoking--epidemiology; Voluntary Workers; / Boston; Connecticut; North Carolina; Limits: Aged; Comparative Study; Female; Human; Male; Support, Non-U.S. Gov't.

Author: Bienia R, Ratcliff S, Barbour GL, Kummer M
Title: Malnutrition in the hospitalized geriatric patient
Journal: Journal of the American Geriatrics Society
Year: 1982 Jul
Volume: 30
Number: 7
Pages: 433-436
Notes: Malnutrition
Abstract: The nutritional status of 59 consecutive geriatric male patients admitted to the medical service of a Veterans Administration Hospital was evaluated and compared with that of 93 younger patients admitted during the period. Protein-calorie malnutrition was diagnosed in 61 per cent of patients aged 65 or older compared with 28 per cent of patients younger than 65. The death rate and the incidence of infection were higher in the malnourished geriatric patients, however, there was no increase in the incidences of these abnormal findings compared with well-nourished patients udder the age of 65. The presence of malnutrition on admission, regardless of age, predicted a significant increase in the risk of infection or death during the hospital course
Keywords: Hospitalization; Protein-Energy Malnutrition--epidemiology; Other Subjects (MeSH): Age Factors; Anemia--etiology; Cross Infection--etiology; Hospitals, Veterans; Protein-Energy Malnutrition--diagnosis; Protein-Energy Malnutrition--mortality; Risk; Skin Tests; Limits: Aged; Comparative Study; Human; Male

Author: Bild DE, Fitzpatrick A, Fried LP, Wong ND, Haan MN, Lyles M, Bovill E, Polak JF, Schulz R
Title: Age-related trends in cardiovascular morbidity and physical functioning in the elderly: the Cardiovascular Health Study
Journal: Journal of the American Geriatrics Society
Year: 1993 Oct
Volume: 41
Number: 10
Pages: 1047-1056
Notes: Hypertension
Abstract: OBJECTIVE: To describe relationships between age and sub-clinical cardiovascular disease, manifest chronic disease, and physical functioning and limitations among persons aged 65 years and older, with emphasis on the "oldest old," those 85 years and older. DESIGN: Observational population-based study. SETTING: Four U.S. communities: Forsyth County, North Carolina; Sacramento County, California; Washington County, Maryland; and Pittsburgh, Pennsylvania. PARTICIPANTS: 5,201 men and women aged 65 years and older. MEASUREMENTS: Demographic data; histories of cardiovascular disease (CVD), chronic lung disease, arthritis, diabetes, and hypertension; measures of subclinical disease including arm and ankle blood pressures, internal carotid wall thickness and stenosis, ejection fraction, left ventricular mass, fractional shortening, and diastolic function, electrocardiographic left ventricular hypertrophy and cardiac injury score, forced expiratory flow and volume; functional status including self-reported physical functioning, hearing and sight limitations and health status, and performance-based measures of function. These variables were examined among men and women in three age groups: 65-74 years, 75-84 years, and 85 + years. Subgroups of participants with and without manifest CVD were also examined. MAIN RESULTS: In women, the prevalence of CVD and other chronic conditions increased with age, and the highest rates occurred among those 85 years and older. In men, prevalence rates increased between the two younger groups, but the oldest group had lower than expected rates for coronary heart

disease, cerebrovascular disease, hypertension, and chronic lung disease. In contrast, there were strong age-related linear trends in most of the subclinical measures of blood pressure, atherosclerosis and pulmonary function and in virtually all measures of functional status in both gender groups across the age range. There was a particularly marked decline in functional status between the two older age groups. While subclinical disease was greater and functional status was poorer among those with manifest CVD, with few exceptions, age-related trends were not significantly different between the two groups. CONCLUSIONS: Lower than expected prevalence rates of CVD among those aged 85 years and older, particularly among men, in this study of community-dwelling elderly may represent selection bias or a real plateauing in disease prevalence with age. However, subclinical disease appears to increase and functional status to decline across the age range in both men and women regardless of the presence of CVD. The apparent increase in subclinical disease with age indicates potential for CVD prevention after age 65.

Keywords: Activities of Daily Living; Cardiovascular Diseases--epidemiology; Other Subjects (MeSH): Age Distribution; Cardiovascular Diseases--physiopathology; Prevalence; Sex Distribution; Socioeconomic Factors; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Blaum CS, Fries BE, Fiatarone MA
Title: Factors associated with low body mass index and weight loss in nursing home residents
Journal: Journals of Gerontology. Series A, Biological Sciences and Medical Sciences
Year: 1995 May
Volume: 50
Number: 3
Pages: M162-M168
Notes: Malnutrition
Abstract: BACKGROUND. Undernutrition in nursing home residents is a significant and possibly modifiable public health problem. We evaluated the hypothesis that some potentially modifiable factors are associated with resident undernutrition. METHODS. This study is a cross-sectional, secondary data analysis of 6,832 community nursing home residents sampled from 202 nursing homes in 7 states. Data were from the Minimum Data Set (MDS), and HCFA-mandated resident assessment instrument used in U.S. community nursing homes. Two dependent variables represented undernutrition: (a) low body mass index (BMI), defined as the lowest quartile BMI of the sample (19.42 kg/m2 and below); and (b) weight loss, an MDS measure defined as 5% decrease in weight in 30 days, or a 10% decrease in 180 days (9.9% of the sample). Independent variables included resident demographics, eating-related variables, variables measuring functional, cognitive, and affective statuses, and medical conditions. Separate logistic regression models were estimated for low BMI and weight loss to test multivariate associations. RESULTS. Poor oral intake, eating dependency, decubiti, and chewing problems increase the likelihood of both low BMI and weight loss. Female gender, age 85 or older, bedfast, and hip fracture increase the odds of low BMI only; depressed behaviors and two or more chronic diseases increase the odds of weight loss only. CONCLUSION. Undernutrition in nursing home residents is a multifactorial syndrome. Improved oral feeding methods and treatment of depression are potentially important ways to counteract undernutrition in nursing home residents by targeting reversible features.
Keywords: Body Mass Index; Weight Loss; Other Subjects (MeSH): Activities of Daily Living; Behavior; Cognition Disorders--complications; Cross-Sectional Studies; Depression--complications; Eating; Nutrition Disorders--etiology; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.

Author: Bowen JD, Malter AD, Sheppard L, Kukull WA, McCormick WC, Teri L, Larson EB
Title: Predictors of mortality in patients diagnosed with probable Alzheimer's disease
Journal: Neurology
Year: 1996 Aug
Volume: 47
Number: 2
Pages: 433-439

Notes: Dementia

Abstract: OBJECTIVE: We sought to identify factors associated with mortality in persons recently diagnosed with probable Alzheimer's disease (AD). BACKGROUND: Predicting mortality in AD in needed both in patient care and public health planning. Previous studies have identified several factors which contribute to mortality in AD, but few longitudinal studies of population-based cohorts exist. METHODS: In a longitudinal follow-up study 327 patients with newly diagnosed probable AD (mean Mini-Mental State Examination [MMSE] score of 20) from a large, stable health maintenance organization were identified. Demographic characteristics, dementia severity, and comorbid conditions were identified at enrollment. Patients were followed longitudinally (median 3.3 years, total 898 person-years). Baseline characteristics were used to predict survival in univariate and multivariate models. RESULTS: Increased mortality was seen in patients with probable AD (9.0 deaths per 100 person-years) compared with the community population adjusted for age and gender (4.3 deaths per 100 person-years). On univariate analysis we found increased age, male gender, impairment on MMSE or Blessed dementia rating scale (DRS), rate of MMSE decline, wandering or agitation, vascular disease, and sensory impairment affecting the ability to read or hear to be moderately associated with decreased survival. After adjusting for age and gender in a multivariate model, Blessed DRS score and sensory impairment affecting the ability to read were independently associated with decreased survival. CONCLUSIONS: Short-term mortality is increased in patients newly diagnosed with probable AD. Measures of dementia severity, measures of general debility, and vascular disease are associated with increased mortality. Of these, general debility and sensory impairment were more strongly associated with shortened survival.

Keywords: Alzheimer Disease--mortality; Other Subjects (MeSH): Survival Analysis; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Brandeis GH, Morris JN, Nash DJ, Lipsitz LA
Title: The epidemiology and natural history of pressure ulcers in elderly nursing home residents
Journal: Journal of the American Medical Association
Year: 1990 Dec 12
Volume: 264
Number: 22
Pages: 2905-2909
Notes: Pressure Ulcers

Abstract: We analyzed prospective data from 19,889 elderly residents of 51 nursing homes from 1984 to 1985 to determine the prevalence, incidence, and natural history of pressure ulcers. Among all residents admitted to nursing homes, 11.3% possessed a stage II through stage IV pressure ulcer. For those residents admitted to the nursing home without pressure ulcers during the study period, the 1-year incidence was 13.2%. This increased to 21.6% by 2 years of nursing home stay. People already residing in a nursing home at the start of the study had a 1-year incidence of 9.5%, which increased to 20.4% by 2 years. Pressure ulcers were associated with an increased rate of mortality, but not hospitalization. Longitudinal follow-up of residents with pressure ulcers demonstrated that a majority of their lesions were healed by 1 year. Most of the improvement occurred early in a person's nursing home stay. Although nursing home residents with pressure ulcers have a higher mortality, with good medical care pressure ulcers can be expected to heal.

Keywords: Decubitus Ulcer--epidemiology; Nursing Homes; Other Subjects (MeSH): Decubitus Ulcer--physiopathology; Decubitus Ulcer--therapy; Hospitalization--statistics & numerical data; Incidence; Prevalence; Survival Analysis; United States--epidemiology; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Brook RH, Park RE, Chassin MR, Kosecoff J, Keesey J, Solomon DH
Title: Carotid endarterectomy for elderly patients: predicting complications
Journal: Annals of Internal Medicine
Year: 1990 Nov 15
Volume: 113

Number: 10
Pages: 747-753
Notes: Stroke
Abstract: OBJECTIVE: To determine whether the complication or death rate from carotid endarterectomy can be predicted from hospital and physician structural variables, such as the hospital's teaching status or the number of endarterectomies done by the surgeon per year. DESIGN: Survey of medical records. After controlling for the severity of the patient's condition on the basis of data in the medical record at the time of the endarterectomy, regression analyses were used to predict the postoperative stroke, heart attack, and 30-day death rate as a function of patient, physician, and hospital characteristics. SETTING: Three geographic areas (states or large parts of states; average population, 3 million) in the United States. PATIENTS: Random sample of 1302 patients 65 years of age or older having carotid endarterectomy in 1981. INTERVENTION: Carotid endarterectomy. MEASUREMENTS AND MAIN RESULTS: Of 1302 patients, 11.3% had a postoperative stroke or heart attack or died within 30 days of the operation. Patient age, race, income, and gender; physician volume, board certification status, and age; and hospital size, for-profit status, ownership, and teaching status were not significantly related to the postoperative complication or death rate. If the surgeon was a graduate of a foreign, but not a Western European or Canadian, medical school, however, the average complication or death rate rose from 10.4% to 19.6% (P less than 0.05). CONCLUSIONS: The effectiveness of carotid endarterectomy depends heavily on its complication rate. Because complications after surgery cannot, in general, be predicted from structural variables, referring physicians cannot rely solely on the surgeon's experience and qualifications when recommending a carotid endarterectomy. The surgeon's and the hospital's actual postoperative complication and death rate should be considered.
Keywords: Carotid Arteries--surgery; Endarterectomy--adverse effects; Other Subjects (MeSH): Age Factors; Cerebrovascular Disorders--epidemiology; Cerebrovascular Disorders--etiology; Endarterectomy--mortality; Models, Statistical; Myocardial Infarction--epidemiology; Myocardial Infarction--etiology; Outcome and Process Assessment (Health Care); Regression Analysis; Risk Factors; Limits: Aged; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.

Author: Butler RN, Lewis MI
Title: Late-life depression: when and how to intervene
Journal: Geriatrics
Year: 1995 Aug
Volume: 50
Number: 8
Pages: 44-6, 49-52, 55; quiz 56-7
Notes: Depression
Abstract: Late-life depression ranges from mild to severe and can lead to significant physical and social limitations. Up to one-third of patients with medical disorders also suffer from depressive symptoms. Differential diagnosis of depression is often confounded by medical conditions that impair cognitive functioning, such as Alzheimer's disease and vascular dementia. Depression is a modifiable risk factor for suicide in old age. Once diagnosed, depression is a highly treatable disease. Treatment modalities include psychotherapy, antidepressants, and electroconvulsive therapy for intractable cases. Many patients are now being treated in primary care settings, due to managed care limits on referrals and to patient reluctance to seek psychiatric care.
Keywords: Depressive Disorder--diagnosis; Depressive Disorder--therapy; Other Subjects (MeSH): Age Factors; Antidepressive Agents--therapeutic use; Comorbidity; Depressive Disorder--etiology; Depressive Disorder--psychology; Diagnosis, Differential; Electroconvulsive Therapy; Guilt; Suicide; Limits: Aged; Case Report; Female; Human; Male

Author: Cheitlin MD
Title: Coronary bypass surgery in the elderly
Journal: Clinics in Geriatric Medicine
Year: 1996 Feb

Volume: 12
Number: 1
Pages: 195-205
Notes: Ischemic Heart Disease
Abstract: The incidence and severity of coronary artery disease increase with age. Because the mortality and morbidity of patients over the age of 70 are higher than those for younger patients, many earlier studies comparing the effectiveness of bypass surgery to medical management deliberately excluded patients over the age of 65. Presently, however, there are many reports on the morbidity and mortality of patients having coronary bypass surgery who are over the age of 65 and 70 and even in some reports, over the age of 80. Compared with younger patients, the elderly have more severe disease, frequent comorbidity, and a slightly higher perioperative mortality and morbidity. In properly selected patients, that is patients in whom the major problem is the coronary artery disease and not multisystem failure, the benefit from coronary artery bypass surgery as far as relief of angina and improvement of physical activity is concerned is equal to the benefit that younger patients experience. Unlike younger patients, in patients over 75 years of age, the goal of surgery is not necessarily to prolong life, although in the appropriate patients this probably occurs, but to decrease or eliminate angina and return the patient to more normal activity and a better quality of life.
Keywords: Coronary Artery Bypass; Coronary Disease--surgery; Other Subjects (MeSH): Angioplasty, Transluminal, Percutaneous Coronary--adverse; effects; Angioplasty, Transluminal, Percutaneous Coronary--methods; Clinical Trials; Coronary Artery Bypass--adverse effects; Coronary Artery Bypass--methods; Coronary Disease--therapy; Postoperative Complications; Prognosis; Risk Factors; Survival Rate; Limits: Aged; Female; Human; Male.

Author: Chernoff R
Title: Meeting the nutritional needs of the elderly in the institutional setting
Journal: Nutrition Reviews
Year: 1994 Apr
Volume: 52
Number: 4
Pages: 132-136
Notes: Malnutrition
Abstract: Meeting the nutritional needs of elderly persons who are living in institutionalized settings is often a great challenge for nutrition practitioners. Part of the challenge is to determine nutritional requirements by appropriately assessing individual needs, and part is to analyze the effects of risk factors that include chronic conditions, intermittent concurrent illnesses, medications, and psychologic state. Another strategy in meeting the nutritional needs of the institutionalized elderly is to set nutritional goals within the constraints imposed by the resources available within the institution. Some of the obstacles to achieving nutrition goals in individuals living in an institution may be closely related to the limits imposed by institutional resources, which may include staffing patterns, finances, and state and federal regulations.
Keywords: Institutionalization; Nutrition Disorders--etiology; Nutritional Requirements; Other Subjects (MeSH): Activities of Daily Living; Nutrition Assessment; Nutrition Disorders--prevention & control; Nutrition Disorders--therapy; Nutritional Status; Risk Factors; Limits: Aged; Human.

Author: Childs SJ, Egan RJ
Title: Bacteriuria and urinary infections in the elderly
Journal: Urologic Clinics of North America
Year: 1996 Feb
Volume: 23
Number: 1
Pages: 43-54
Notes: Urinary Conditions
Abstract: Aging is associated with a decreased physiological functioning, reflecting the body's progressive inability to maintain homeostasis as age increases. The physiologic dysfunctions experienced in response to the aging process increase the individual's susceptibility to

infection. Many elderly subjects are hospitalized for the care and treatment of functional disabilities; thus, an increased exposure to possible uropathogens (many with antimicrobial resistance) often results in infection. Additionally, indwelling catheters and other attending procedures may provide a microenvironment conducive to infection. In catheterized patients, the drainage bag often is infected with polymicrobes, which enhances the transference of antimicrobial genetic information. Postmenopause reflects a decrease in circulating estrogen, and a relational decrease in lactobacilli colonization with a lower vaginal pH. Consequently, vaginal colonization with possible uropathogenic and gastrointestinal bacteria increases, which partially may account for the generally higher incidence of bacteriuria in elderly women as opposed to elderly men. Urinary infections in the elderly more commonly are asymptomatic. Treatment for asymptomatic bacteriuria is not justified and will often present opportunities for the infecting organism to acquire antimicrobial resistance. Only symptomatic bacteriuria presenting adverse conditions in the host should be treated. Antimicrobial selection for the treatment of complicating symptomatic urinary infections in elderly subjects is complicated by the many physiological and environmental conditions associated with older age patients. Unfortunately, data confirming the efficacy and safety of antimicrobial agents for the treatment of symptomatic infections in the elderly presently are insufficient.

Keywords: Bacteriuria; Other Subjects (MeSH): Bacteriuria--diagnosis; Bacteriuria--therapy; Urinary Tract Infections; Limits: Aged; Female; Human; Male.

Author: Chrischilles EA, Butler CD, Davis CS, Wallace RB
Title: A model of lifetime osteoporosis impact
Journal: Archives of Internal Medicine
Year: 1991 Oct
Volume: 151
Number: 10
Pages: 2026-2032
Notes: Osteoporosis
Abstract: The study goal was to use population-based data to model aspects of lifetime osteoporosis impact not previously studied, specifically: (1) to estimate person-years of fracture-related functional impairment against the trajectory of functional status in the general population; (2) jointly to consider hip, vertebral, and Colles' fractures in estimating the percent of women who will ever fracture; and (3) to estimate the lifetime number of fractures expected in a cohort of 10,000 50-year-old white postmenopausal women. The model estimates that 54% of 50-year-old women will sustain osteoporosis-related fractures during their remaining lifetimes. Beyond the functional impairment expected in similarly aged, unfractured women, osteoporosis-related fractures are estimated to cause 6.7% of women to become dependent in basic activities of daily living; 7.8% are expected to require nursing home care for an average of 7.6 years.
Keywords: Fractures, Spontaneous--etiology; Models, Statistical; Osteoporosis, Postmenopausal--complications; Other Subjects (MeSH): Cohort Studies; Colles' Fracture--etiology; Health Status; Hip Fractures--etiology; Markov Chains; Mathematical Computing; Prognosis; Recurrence; Spinal Fractures--etiology; Limits: Female; Human; Middle Age.

Author: Chrischilles EA, Foley DJ, Wallace RB, Lemke JH, Semla TP, Hanlon JT, Glynn RJ, Ostfeld AM, Guralnik JM
Title: Use of medications by persons 65 and over: data from the established populations for epidemiologic studies of the elderly
Journal: Journal of Gerontology
Year: 1992 Sep
Volume: 47
Number: 5
Pages: M137-M144
Notes: Appropriate Medication Use
Abstract: Data were analyzed from household interviews of four population-based cohorts comprising the Established Populations for Epidemiologic Studies of the Elderly to estimate the prevalence of prescription and nonprescription medication use among community-living elderly and to

examine sociodemographic and health factors related to medication use. Prescription drugs were used by 60-68% of men and 68-78% of women. Nonprescription drugs were used by 52-68% of men and 64-76% of women. Use of prescription medications generally increased with age although use of nonprescription drugs was not associated with age. Men and women who smoked or used alcohol in the preceding year frequently took medications. Those who reported more depressive symptoms, impairments in physical functioning, hospitalizations, and had poorer self-perceived health status were most likely to take medications. However, 10-29% of respondents with fair or poor self-perceived health took no prescription medications, and 3-13% took neither prescription nor nonprescription medications. While further research appears warranted into potential overmedication of elders, particularly those with many depressive symptoms, these data suggest that studies of potential underuse among elders with poor health are equally important.

Keywords: Drug Therapy--statistics & numerical data; Drugs, Non-Prescription; Prescriptions, Drug--statistics & numerical data; Other Subjects (MeSH): Activities of Daily Living; Age Factors; Alcohol Drinking--epidemiology; Cohort Studies; Depression--epidemiology; Health Status; Hospitalization--statistics & numerical data; Income; Sex Factors; Smoking--epidemiology; United States--epidemiology; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Ciurlia-Guy E, Cashman M, Lewsen B
Title: Identifying hearing loss and hearing handicap among chronic care elderly people
Journal: Gerontologist
Year: 1993 Oct
Volume: 33
Number: 5
Pages: 644-649
Notes: Hearing Loss
Abstract: This research assessed the appropriateness of the 1989 ASHA Draft Guidelines for the Identification of Hearing Impairment/Handicap in Adult/Elderly Persons for an institutionalized population. We tested 104 elderly chronic care residents using a conventional audiometer, an AudioScope3TM screener, and the Hearing Handicap Inventory for the Elderly. Results showed that this population is capable of performing these tests. Screening should be done at 2,000 Hz only. However, the prevalence of hearing loss is so high (69%) that we recommend conventional testing of all institutionalized elderly where feasible.
Keywords: Chronic Disease; Hearing Disorders--diagnosis; Other Subjects (MeSH): Hearing Tests--methods; Limits: Aged; Female; Human; Male

Author: Cohen SJ, Robinson D, Dugan E, Howard G, Suggs PK, Pearce KF, Carroll DD, McGann P, Preisse J
Title: Communication between older adults and their physicians about urinary incontinence
Journal: Journals of Gerontology. Series A, Biological Sciences and Medical Sciences
Year: 1999 Jan
Volume: 54
Number: 1
Pages: M34-M37
Notes: Urinary Conditions
Abstract: BACKGROUND: Urinary incontinence (UI) is a common but undertreated condition in older adults. The study objective was to determine older patients' characteristics related to communication patterns with their physicians about UI. METHODS: Telephone surveys of a sample of patients age 60 and older who visited a primary care provider (PCP) for any reason within the past 2 months were conducted. Participating physicians included general internists and family physicians from 41 primary care practices located in the 17 counties of northwest North Carolina whose 435 incontinent and 711 continent patients completed the surveys. The main outcome measures were patients' frequency and amount of urinary leakage, being asked about incontinence, and initiating a discussion of incontinence if not asked by their PCP. RESULTS: Age and gender were significant independent predictors of incontinence. PCPs

were significantly more likely to assess incontinent women than incontinent men (21% vs 10%, p = .053). The older cohorts of older adults were significantly more likely to be symptomatic for UI than their younger counterparts. However, the younger cohorts were more likely to be screened for incontinence by their physicians. CONCLUSIONS: Despite the publication of guidelines on improving the screening and management of UI, the problem remains common and underdetected in older adults. Physicians don't ask and patients don't tell. Interventions are needed to remind physicians to screen high risk patients and to encourage patients with UI to communicate with their physicians.

Keywords: Communication; Physician-Patient Relations; Urinary ; --physiopathology; Other Subjects (MeSH): Age Factors; Analysis of Variance; Chi-Square Distribution; Cohort Studies; Family Practice; Forecasting; Internal Medicine; Interviews; Mass Screening; Outcome Assessment (Health Care); Patient Education; Practice Guidelines; Primary Health Care; Risk Factors; Sex Factors; Urinary ; --diagnosis; North Carolina; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Collins JG
Title: Prevalence of selected chronic conditions: United States, 1990-1992.
Journal: Vital and Health Statistics. Series 10: Data From the National Health Survey
Year: 1997 Jan
Volume: 194
Number:
Pages: 1-89
Notes: Stroke
Abstract: This report presents an update of the prevalence of selected chronic conditions in the United States. Its purpose is to provide prevalence data by age, sex and age, race and age, family income, and geographic region for major chronic condition systems. It further assesses the percent of selected conditions that cause activity limitation, the percent for which a physician was consulted, and the percent that caused hospitalization. Conditions with the highest prevalence and those causing the most disability days are also analyzed. Trends in prevalence rates for the conditions with highest prevalence are examined as well. Information for this report is based on data collected during the National Health Interview Survey (NHIS) for the years 1990, 1991, and 1992. This is a continuing nationwide survey of households for which a probability sample of the civilian noninstitutionalized population of the United States is interviewed by the U.S. Bureau of the Census regarding the health and other characteristics of each member of the household. The sample for the years 1990-92 was composed of 142,638 households containing 368,075 persons. Each household was administered one of six of the chronic conditions system lists. Deformities or orthopedic impairments was the most frequent chronic condition reported with almost 35 million conditions. Other conditions high in prevalence were chronic sinusitis, arthritis, and high blood pressure with annual averages of 33.7, 31.8, and 27.6 million conditions, respectively. Mental retardation and multiple sclerosis caused the highest percents of activity limitation among persons afflicted, 87.5 percent and 69.4 percent, respectively. Deformities and other orthopedic impairments, arthritis, and heart disease caused the highest numbers of restricted activity days and bed disability days per year, whereas, malignant neoplasms of the lung, bronchus, and other respiratory sites, caused the highest number of restricted activity days per year, per condition reported, 96.1 days. In little more than a decade, the prevalence rate from asthma has increased almost 50 percent and the rate from chronic bronchitis has increased 46 percent.
Keywords: Chronic Disease--epidemiology; Other Subjects (MeSH): Chronic Disease--therapy; Data Collection--methods; Demography; Disability Evaluation; Ethnic Groups; Prevalence; United States--epidemiology; Limits: Adult; Aged; Child; Child, Preschool; Female; Human; Infant; Male; Middle Age.

Author: Cornoni-Huntley J, Ostfeld AM, Taylor JO, Wallace RB, Blazer D, Berkman LF, Evans DA, Kohout FJ, Lemke JH, Scherr PA, et al.
Title: Established populations for epidemiologic studies of the elderly: Study design and methodology
Journal: Aging

Year: 1993 Feb
Volume: 5
Number: 1
Pages: 27-37
Notes: Elderly Epidemiology
Abstract: A project initiated by the intramural Epidemiology, Demography and Biometry Program of the National Institute on Aging, entitled "Established Populations for Epidemiologic Studies of the Elderly" (EPESE), has developed information on death, chronic conditions, disabilities, and institutionalization for representative samples of elderly people living in communities. The EPESE consists of prospective epidemiologic studies of approximately 14,000 persons 65 years of age and older in four different communities: East Boston, Massachusetts; two rural counties in Iowa; New Haven, Connecticut; and segments of five counties in the north-central Piedmont area of North Carolina. The study design includes an initial baseline household interview followed by continued surveillance of morbidity and mortality. Participants are re-contacted annually in conjunction with the collection of data on cause of death and factors related to hospitalization and nursing home admissions. Concurrently, the investigators developed substudies focused on specific problems of the elderly. The value of this research lies in the longitudinal design which allows for analyses aimed at identifying risk factors of diseases, disabilities, hospitalizations, institutionalization, and mortality.
Keywords: Epidemiologic Methods; Health Status; Aged; Other Subjects (MeSH):; Data Collection; Morbidity; Mortality; Nursing Homes; Prospective Studies; Questionnaires; Risk Factors; Boston; Connecticut; Iowa; North Carolina; Limits: Aged, 80 and over; Female; Human; Male

Author: Cornoni-Huntley JC, Foley DJ, Guralnik JM
Title: Co-morbidity analysis: a strategy for understanding mortality, disability and use of health care facilities of older people
Journal: International Journal of Epidemiology
Year: 1991
Volume: 20
Number: Suppl 1
Pages: S8-S17
Notes: Elderly Epidemiology
Abstract: Older people often have several co-existing health problems. The type, number, duration and severity of these problems may have an impact on longevity and maintenance of independence. Analyses of co-morbidity can assess the additive or multiplicative effect of more than one chronic condition or impairment on the risks of mortality, loss of functioning and use of health services. Three major surveys of the elderly, initiated in the past ten years, provide data for studying the added burden of multiple morbidities. These surveys are: The National Health Interview Survey-Supplement on Aging; The National Health and Nutrition Examination Survey I-Epidemiologic Follow-up Study; and The Established Populations for Epidemiologic Studies of the Elderly. Results of analyses of co-morbidity using data from these three surveys are presented. Although each analysis used a different definitional approach to estimate the co-morbidity effect, each demonstrated an associated or increased risk on the outcome.
Keywords: Comorbidity; Frail Elderly--statistics & numerical data; Health Facilities--utilization; Health Status; Mortality; Other Subjects (MeSH): Activities of Daily Living; Cohort Studies; Epidemiologic Methods; Health Surveys; Prevalence; United States--epidemiology; Limits: Aged; Aged, 80 and over; Female; Human; Male

Author: Cruickshanks KJ, Wiley TL, Tweed TS, Klein BE, Klein R, Mares-Perlman JA, Nondahl DM
Title: Prevalence of hearing loss in older adults in Beaver Dam, Wisconsin. The Epidemiology of Hearing Loss Study
Journal: American Journal of Epidemiology
Year: 1998 Nov 1
Volume: 148
Number: 9
Pages: 879-886

Notes: Hearing Loss

Abstract: There are no recent population-based data on the prevalence of hearing loss in older adults using standard audiometric testing. The population-based Epidemiology of Hearing Loss Study was designed to measure the prevalence of hearing loss in adults aged 48-92 years, residing in Beaver Dam, Wisconsin. Hearing thresholds were measured with standardized protocols using pure-tone air- and bone-conduction audiometry in sound-treated booths. The examination also included an otoscopic evaluation, screening tympanogram, and a questionnaire on hearing-related medical history, noise exposure, other potential risk factors, and self-perceived hearing handicap. Of the 4,541 eligible people, 3,753 (82.6%) participated in the hearing study (1993-1995). The average age of participants was 65.8 years, and 57.7% were women. The prevalence of hearing loss was 45.9%. The odds of hearing loss increased with age (odds ratio (OR) = 1.88 for 5 years, 95% confidence interval (CI) 1.80-1.97) and were greater for men than women (OR = 4.42, 95% CI 3.73-5.24). The male excess of hearing loss remained statistically significant after adjusting for age, education, noise exposure, and occupation (OR = 3.65). These results demonstrate that hearing loss is a very common problem affecting older adults. Epidemiologic studies are needed to understand the genetic, environmental, and sex-related determinants of age-related hearing loss and to identify potential intervention strategies.

Keywords: Hearing Loss, Bilateral--epidemiology; Other Subjects (MeSH): Follow-Up Studies; Hearing Loss, Bilateral--diagnosis; Hearing Loss, Bilateral--etiology; Hearing Tests; Odds Ratio; Prevalence; Questionnaires; Retrospective Studies; Risk Factors; Social Class; Urban Population; Wisconsin--epidemiology; Limits: Adult; Aged; Aged, 80 and over; Comparative Study; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Cummings SR, Black DM, Nevitt MC, Browner WS, Cauley JA, Genant HK, Mascioli SR, Scott JC, Seeley DG, Steiger P, et al.

Title: Appendicular bone density and age predict hip fracture in women. The Study of Osteoporotic Fractures Research Group

Journal: Journal of the American Medical Association

Year: 1990 Feb 2

Volume: 263

Number: 5

Pages: 665-668

Notes: Osteoporosis

Abstract: To determine whether measurement of bone density predicts hip fracture in women, we prospectively studied 9703 nonblack women aged 65 years and older who had measurements of bone mineral density using single-photon absorptiometry in the calcaneus, distal radius, and proximal radius. During an average of 1.6 years of follow-up, 53 hip fractures occurred. The risk of hip fracture was inversely related to bone density at all three measurement sites. After adjusting for age, the relative risk of hip fracture was 1.66 for a decrease of 1 SD in the bone density at the calcaneus (95% confidence interval, 1.22 to 2.26), 1.55 (95% confidence interval, 1.13 to 2.11) at the distal radius, and 1.41 (95% confidence interval, 1.06 to 1.88) at the proximal radius. None of the three measurements was a significantly better predictor of hip fracture than the others. After adjusting for bone mineral density, the risk of hip fracture doubled for each 10-year increase in age (relative risk, 2.09; 95% confidence interval, 1.31 to 3.33). We conclude that decreased bone density in the appendicular skeleton is associated with an increased risk of hip fracture, but this accounts for only part of the age-related increase in risk of hip fracture among older women.

Keywords: Bone Density; Hip Fractures--diagnosis; Osteoporosis--physiopathology; Other Subjects (MeSH): Age Factors; Calcaneus--physiopathology; Cohort Studies; Follow-Up Studies; Hip Fractures--etiology; Hip Fractures--physiopathology; Multicenter Studies; Osteoporosis--complications; Proportional Hazards Models; Prospective Studies; Radius--physiopathology; Risk Factors; Limits: Aged; Aged, 80 and over; Female; Human; Support, U.S. Gov't, P.H.S.

Author: DeVore PA

Title: Prevalence of olfactory dysfunction, hearing deficit, and cognitive dysfunction among elderly patients in a suburban family practice

Journal: Southern Medical Journal

Year: 1992 Sep
Volume: 85
Number: 9
Pages: 894-896
Notes: Hearing Loss
Abstract: Olfactory and hearing senses diminish with age, and cognitive dysfunction increases. The association between sensory deficits and cognitive dysfunction has not been well studied. This paper presents the results of testing a group of 50 community-dwelling patients of a family physician who developed a computer-assisted comprehensive geriatric assessment program. Olfactory dysfunction was present in 39% of subjects, with 18% being unable to detect smoke. There was no correlation between olfactory dysfunction and cognitive dysfunction. Hearing deficit, however, was found in 10% of subjects, all of whom also had either an associated olfactory or cognitive dysfunction. This study demonstrates the high prevalence of olfactory and auditory dysfunction in an ambulatory geriatric population, with a possible association between hearing deficit and cognitive dysfunction. The problem of multiple sensory deficits should be addressed in any long-term management decisions regarding elderly patients.
Keywords: Cognition Disorders--epidemiology; Family Practice--statistics & numerical data; Hearing Disorders--epidemiology; Nervous System Diseases--epidemiology; Smell; Other Subjects (MeSH): Causality; Cognition Disorders--diagnosis; Diagnosis, Computer-Assisted--methods; Diagnosis, Computer-Assisted--standards; Geriatric Assessment; Hearing Disorders--diagnosis; Nervous System Diseases--diagnosis; Prevalence; Software; Suburban Population; Maryland--epidemiology; Limits: Aged; Aged, 80 and over; Female; Human; Male

Author: Emanuel LL, Barry MJ, Stoeckle JD, Ettelson LM, Emanuel EJ
Title: Advance directives for medical care--a case for greater use
Journal: New England Journal of Medicine
Year: 1991 Mar 28
Volume: 324
Number: 13
Pages: 889-895
Notes: End of Life
Abstract: BACKGROUND. Advance directives for medical care and the designation of proxy decision makers to guide medical care after a patient has become incompetent have been widely advocated but little studied. We investigated the attitudes of patients toward planning, perceived barriers to such planning, treatment preferences in four hypothetical scenarios, and the feasibility of using a particular document (the Medical Directive) in the outpatient setting to specify advance directives. METHODS: We surveyed 405 outpatients of 30 primary care physicians at Massachusetts General Hospital and 102 members of the general public in Boston and asked them as part of the survey to complete the Medical Directive. RESULTS: Advance directives were desired by 93 percent of the outpatients and 89 percent of the members of the general public (P greater than 0.2). Both the young and the healthy subgroups expressed at least as much interest in planning as those older than 65 and those in fair-to-poor health. Of the perceived barriers to issuing advance directives, the lack of physician initiative was among the most frequently mentioned, and the disturbing nature of the topic was among the least. The outpatients refused life-sustaining treatments in 71 percent of their responses to options in the four scenarios (coma with chance of recovery, 57 percent; persistent vegetative state, 85 percent; dementia, 79 percent; and dementia with a terminal illness, 87 percent), with small differences between widely differing types of treatments. Specific treatment preferences could not be usefully predicted according to age, self-rated state of health, or other demographic features. Completing the Medical Directive took a median of 14 minutes. CONCLUSIONS: When people are asked to imagine themselves incompetent with a poor prognosis, they decide against life-sustaining treatments about 70 percent of the time. Health, age, or other demographic features cannot be used, however, to predict specific preferences. Advance directives as part of a comprehensive approach such as that provided by the Medical Directive are desired by most people, require physician initiative, and can be achieved during a regular office visit.
Keywords: Advance Directives--statistics & numerical data; Attitude to Health; Life Support Care--utilization; Other Subjects (MeSH): Attitude of Health Personnel; Cohort Studies; Hospital Bed

Capacity, 500 and over; Outpatients; Public Opinion; Questionnaires; Boston; Limits: Aged; Aged, 80 and over; Human; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Ewen EF Jr., Keating HJ 3d
Title: Alternatives to major surgery in the high-risk elderly
Journal: Clinics in Geriatric Medicine
Year: 1990 Aug
Volume: 6
Number: 3
Pages: 481-492
Notes: Surgery
Abstract: The frail elderly patent with surgical disease presents a unique challenge to the geriatrician. Coexisting medical disease and increasing surgical risk coupled with a perceived reduction in benefit based on limited functional capacity or life span often make the frail elderly unable or unwilling to undergo major surgery. The many recent advances in medical therapy outlined in this review offer alternatives to major surgery in this population.
Keywords: Geriatrics; Surgical Procedures, Operative; Other Subjects (MeSH): Delivery of Health Care; Patient Care Planning; Therapeutics; Limits: Aged; Aged, 80 and over; Human

Author: Fabiny AR, Kiel DP
Title: Assessing and treating weight loss in nursing home patients
Journal: Clinics in Geriatric Medicine
Year: 1997 Nov
Volume: 13
Number: 4
Pages: 737-751
Notes: Malnutrition
Abstract: Any physician who cares for nursing home residents has been confronted with the problem of unintentional weight loss. This can be a particuiarly vexing problem when the person with weight loss has multiple medical diagnoses, takes many medications, and has some degree of cognitive impairment. Questions raised in such cases include the following: what are normal weights for the old; is some degree of weight loss part of normal aging; what are the causes of weight loss in nursing home residents; and what are the most effective means of reversing the loss.
Keywords: Homes for the Aged; Nursing Homes; Nutrition Disorders--diagnosis; Nutrition Disorders--therapy; Weight Loss; Other Subjects (MeSH): Body Composition; Risk Factors; Limits: Aged; Female; Human; Male

Author: Felson DT
Title: The epidemiology of knee osteoarthritis: results from the Framingham Osteoarthritis Study
Journal: Seminars in Arthritis and Rheumatism
Year: 1990 Dec
Volume: 20
Number: 3 Suppl 1
Pages: 42-50
Notes: Osteoarthritis
Abstract: The Framingham Knee Osteoarthritis study is a population-based study of independently living elderly examining the prevalence of radiographic and symptomatic knee osteoarthritis. This group was assessed in the early 1980s at which time they had been observed for over 35 years and many risk factors for osteoarthritis had been ascertained. Results from this study suggest that knee osteoarthritis increases in prevalence throughout the elderly years, more so in women than in men. Also, studies of risk factors have shown that obesity precedes and increases the risk of knee osteoarthritis, especially in women. Other risk factors documented by the Framingham Osteoarthritis study to be important as risk factors for disease include knee injury, chondrocalcinosis, and occupational knee bending and physical labor. Radiographic

knee osteoarthritis was negatively associated with smoking. No clearcut relationship of osteoarthritis with estrogen use in women was found. In terms of disability, lower extremity dysfunction is common in patients with knee osteoarthritis, but upper extremity dysfunction is not, and symptoms and severe degrees of radiographic osteoarthritis are associated with higher risks of dysfunction.
Keywords: Knee Joint; Osteoarthritis--epidemiology; Other Subjects (MeSH): Bone and Bones--drug effects; Bone and Bones--physiopathology; Chondrocalcinosis--complications; Cohort Studies; Disability Evaluation; Estrogens--pharmacology; Knee Injuries--complications; Knee Joint--physiology; Obesity--complications; Osteoarthritis--etiology; Osteoarthritis--physiopathology; Risk Factors; Smoking--adverse effects; Massachusetts; Limits: Human

Author: Ferrell BA, Ferrell BR, Osterweil D
Title: Pain in the nursing home
Journal: Journal of the American Geriatrics Society
Year: 1990 Apr
Volume: 38
Number: 4
Pages: 409-414
Notes: Pain Management
Abstract: Pain is an understudied problem in geriatric medicine and especially among nursing home residents. The focus of this study was to describe the scope of the problem of pain in a long-term care facility. Ninety-seven subjects from a 311-bed multilevel teaching nursing home were interviewed, and charts were reviewed for pain problems and management strategies. Functional status, depression, and cognitive impairment were also evaluated. Results indicate that 71% of residents had at least one pain complaint (range, 1-4). Of subjects with pain, 34% described constant (continuous) pain and 66% described intermittent pain. Of 43 subjects with intermittent pain, 51% described pain on a daily basis. Major sources of pain included low back pain (40%), arthritis of appendicular joints (24%), previous fracture sites (14%), and neuropathies (11%). Moderately strong correlations were found between pain and infrequent attendance at recreational and social activities (r = .50). However, little correlation was observed between pain and the Yesavage Depression Scale, the Folstein Mini-Mental State Scale, or basic ADLs measured by the Katz Scale. Pain-management strategies consisted of analgesic drugs, physical therapy, and heating pads. Only 15% of patients with pain had received medication within the previous 24 hours. The findings suggest that pain is a major problem in long-term care. Strategies for pain management appear to be limited in scope and application in this setting. Important barriers were identified that influence the reporting and management of pain in this setting.
Keywords: Homes for the Aged; Nursing Homes; Pain--epidemiology; Other Subjects (MeSH): Arthritis--epidemiology; Atherosclerosis--epidemiology; Cognition Disorders--epidemiology; Diabetes Mellitus--epidemiology; Hypertension--epidemiology; Long-Term Care; Neoplasms--epidemiology; Pain--physiopathology; Pain--therapy; Pain Measurement; Pilot Projects; Prevalence; Psychological Tests; Los Angeles; Limits: Aged; Aged, 80 and over; Female; Human; Male

Author: Ferrell BA, Ferrell BR, Rivera L
Title: Pain in cognitively impaired nursing home patients
Journal: Journal of Pain and Symptom Management
Year: 1995 Nov
Volume: 10
Number: 8
Pages: 591-598
Notes: Pain Management
Abstract: Pain is an understudied problem in frail elderly patients, especially those with cognitive impairment, delirium, or dementia. The focus of this study was to describe the pain experienced by patients in skilled nursing homes, which have a high prevalence of cognitive impairment. A random sample of 325 subjects was selected from ten community skilled

nursing homes. Subjects underwent a cross-sectional interview and chart review for the prevalence of pain complaints, etiology, and pain management strategies. Pain was assessed using the McGill Pain Questionnaire and four unidimensional scales previously utilized in younger adults. Thirty-three percent (33%) of subjects were excluded because they were either comatose (21%), non-English speaking (3.7%), temporarily away (sick in hospital) (4.3%), or refused to participate (3.7%). Of 217 subjects in the final analysis, the mean age was 84.9 years, 85% were women, and most were dependent in all activities of daily living. Subjects demonstrated substantial cognitive impairment (mean Folstein Mini-Mental State exam score was 12.1 +/- 7.9), typically having deficits in memory, orientation, and visual spatial skills. Sixty-two percent reported pain complaints, mostly related to musculoskeletal and neuropathic causes. Pain was not consistently documented in records, and pain management strategies appeared to be limited in scope and only partially successful in controlling pain. None of the four unidimensional pain-intensity scales studied in this investigation had a higher completion rate than the Present Pain Intensity Scale of the McGill Pain Questionnaire (65% completion rate). However, 83% of subjects who had pain could complete at least one of the scales. We conclude that cognitive impairment among elderly nursing home residents present a substantial barrier to pain assessment and management. Nonetheless, most patients with mild to moderate cognitive impairment can be assessed using at least one of the available bedside assessment scales.

Keywords: Cognition Disorders--complications; Frail Elderly; Pain--diagnosis; Pain Measurement; Other Subjects (MeSH): Cross-Sectional Studies; Geriatric Assessment; Nursing Homes; Pain--complications; Pain--epidemiology; Prevalence; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Fiatarone MA, O'Neill EF, Ryan ND, Clements KM, Solares GR, Nelson ME, Roberts SB, Kehayias JJ, Lipsitz LA, Evans WJ
Title: Exercise training and nutritional supplementation for physical frailty in very elderly people
Journal: New England Journal of Medicine
Year: 1994 Jun 23
Volume: 330
Number: 25
Pages: 1769-1775
Notes: Falls and Mobility Problems; Malnutrition
Abstract: BACKGROUND. Although disuse of skeletal muscle and undernutrition are often cited as potentially reversible causes of frailty in elderly people, the efficacy of interventions targeted specifically at these deficits has not been carefully studied. METHODS. We conducted a randomized, placebo-controlled trial comparing progressive resistance exercise training, multinutrient supplementation, both interventions, and neither in 100 frail nursing home residents over a 10-week period. RESULTS. The mean (+/- SE) age of the 63 women and 37 men enrolled in the study was 87.1 +/- 0.6 years (range, 72 to 98); 94 percent of the subjects completed the study. Muscle strength increased by 113 +/- 8 percent in the subjects who underwent exercise training, as compared with 3 +/- 9 percent in the nonexercising subjects (P < 0.001). Gait velocity increased by 11.8 +/- 3.8 percent in the exercisers but declined by 1.0 +/- 3.8 percent in the nonexercisers (P = 0.02). Stair-climbing power also improved in the exercisers as compared with the nonexercisers (by 28.4 +/- 6.6 percent vs. 3.6 +/- 6.7 percent, P = 0.01), as did the level of spontaneous physical activity. Cross-sectional thigh-muscle area increased by 2.7 +/- 1.8 percent in the exercisers but declined by 1.8 +/- 2.0 percent in the nonexercisers (P = 0.11). The nutritional supplement had no effect on any primary outcome measure. Total energy intake was significantly increased only in the exercising subjects who also received nutritional supplementation. CONCLUSIONS. High-intensity resistance exercise training is a feasible and effective means of counteracting muscle weakness and physical frailty in very elderly people. In contrast, multi-nutrient supplementation without concomitant exercise does not reduce muscle weakness or physical frailty.

Keywords: Energy Intake; Exercise Therapy; Food, Fortified; Frail Elderly; Other Subjects (MeSH): Body Composition; Gait; Muscles--physiology; Nutritional Status; Physical Endurance; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.

Author: Finley B
Title: Nutritional needs of the person with Alzheimer's disease: practical approaches to quality care
Journal: Journal of the American Dietetic Association
Year: 1997 Oct
Volume: 97
Number: 10 Suppl 2
Pages: S177-180
Notes: Malnutrition
Abstract: Intellectual losses in Alzheimer's disease include ever-decreasing attention span, lack of judgment, compromised logic and reasoning skills, and lack of ability to plan and organize complex tasks. Patients have great difficulty staying focused on the task of eating. Extensive damage to the parietal, temporal, and occipital lobes causes altered processing of sensory input, resulting in distorted perceptions of the world around them. Many so-called "behaviors" are the direct result of clients' responses to their perceived environment. The ability to use utensils deteriorates because of both cognitive and motor losses. These patients commonly have slow, progressive weight loss over the span of their illness, despite high-energy diets. Altering the environment, staff approaches, and food items will make patients' lives easier and maintain good nutrition for as long as possible.
Keywords: Alzheimer Disease; Nutritional Requirements; Quality of Health Care; Other Subjects (MeSH): Alzheimer Disease--complications; Alzheimer Disease--diet therapy; Alzheimer Disease--physiopathology; Cognition Disorders; Motor Skills; Psychomotor Performance; Weight Loss; Limits: Human

Author: Fleming KC, Evans JM, Weber DC, Chutka DS
Title: Practical functional assessment of elderly persons: A primary-care approach
Journal: Mayo Clinic Proceedings
Year: 1995 Sep
Volume: 70
Number: 9
Pages: 890-910
Notes: Function
Abstract: OBJECTIVE: To describe simple, practical measures of physical and psychosocial function to detect problems and enhance the care of elderly patients. DESIGN: We reviewed pertinent articles and current standard textbooks of geriatrics; the most useful findings are summarized, and tools that can be used for functional assessment of the geriatric population are presented. RESULTS: Care of elderly patients necessitates a comprehensive review of key areas of function. Using only clinical judgment, physicians may overlook important clinical deficits common in older patients. Because of their length and complexity, many of the standard geriatric assessment tools are impractical for use by primary-care physicians. Certain simplified or condensed versions--such as the Functional Reach Test and the "Get Up and Go" Test--are efficient substitutes. In this article, we describe methods for practical identification of functional impairments, assessment of cognition and mood, evaluation of hearing and vision, and detection of problems with continence, nutrition, and social needs. Instruments for assessment of caregiver burden are also outlined. CONCLUSION: Use of the assessment tools presented herein can assist primary-care physicians in comprehensive evaluation of function in older patients.
Keywords: Geriatric Assessment; Primary Health Care; Other Subjects (MeSH):; Health Services Needs and Demand; Limits: Aged; Human.

Author: Forman DE, Berman AD, McCabe CH, Baim DS, Wei JY
Title: PTCA in the elderly: the "young-old" versus the "old-old"
Journal: Journal of the American Geriatrics Society
Year: 1992 Jan
Volume: 40
Number: 1

Pages: 19-22
Notes: Ischemic Heart Disease
Abstract: OBJECTIVE: To evaluate the use of percutaneous transluminal coronary angioplasty (PTCA) in elderly coronary artery disease (CAD) patients. DESIGN: A prospective study of patients 60 years and older undergoing de novo PTCA. We analyze patient risk factors, underlying disease, and clinical outcomes, with at least 3-year follow-up. Comparisons between different age strata among these patients are made to clarify differences between the young old (60 to 69 years), the middle old (70 to 79 years), and the very old (80 years and older). SETTING: Beth Israel Hospital, Boston, both a primary care and tertiary care teaching hospital. PATIENTS: 907 consecutive elderly cardiac patients referred for PTCA are studied. INTERVENTIONS: PTCA's were completed using the newest catheter technologies as they became available. All patients were premedicated with aspirin and dipyridamole, and all were anticoagulated with heparin. RESULTS: Subdivision by age demonstrates that the majority (67%) of patients aged 60 to 69 were males, but females were preponderant (61%) in those aged 80 and older. Octogenarians also had lower incidence of hypercholesterolemia, tobacco use, and family history of CAD, and a higher frequency of CHF, angina, and previous MI. Although total procedure-complications increased with age, critical complications (MI, reocclusion, CABG, death) did not. Primary procedural success was similar in all age strata, but older patients had a higher prevalence of multi-vessel disease and longer hospital stay. Follow-up shows that most patients did well after PTCA; there was no increase in repeat PTCA, CABG, and MI with age. CONCLUSIONS: While advanced age is associated with changes in risk and clinical parameters for CAD patients, age alone is not a reasonable criterion to limit the use of PTCA.
Keywords: Angioplasty, Transluminal, Percutaneous Coronary--adverse; effects; Coronary Disease--therapy; Other Subjects (MeSH): Age Factors; Follow-Up Studies; Length of Stay; Patient Readmission; Prospective Studies; Risk Factors; Sex Factors; Limits: Aged; Aged, 80 and over; Comparative Study; Female; Human; Male; Middle Age

Author: Frankl D, Oye RK, Bellamy PE
Title: Attitudes of hospitalized patients toward life support: a survey of 200 medical inpatients
Journal: American Journal of Medicine
Year: 1989 Jun
Volume: 86
Number: 6 Pt 1
Pages: 645-8
Notes: End of Life
Abstract: PURPOSE: Life-support decisions have profound medical, ethical, and economic implications; yet little is known about inpatients' preferences for life-sustaining treatments. We therefore conducted a prospective survey of medical inpatients to determine attitudes toward life support under differing medical outcomes, and the extent of physician communication about these issues. PATIENTS AND METHODS: The study population consisted of 200 adult patients admitted to the general medical services at UCLA Medical Center during August and September 1987. Each patient completed a standardized 13-item questionnaire. Patients rated their agreement with life-support treatment in the context of four outcome scenarios. A five-point Lickert scale for each question was used, and an overall life-support scale was created by summing the four items. Patients were also asked about previous life-support discussions with their physicians. RESULTS: Life support was desired in 90 percent of the patients if their health could be restored to its usual level, in 30 percent if they would be unable to care for themselves after discharge, in 16 percent if their chance for recovery was hopeless, and in only 6 percent if they would remain in a vegetative state. Patients who desired less aggressive care were older, female, and more likely to have terminal illnesses. Only 16 percent reported having discussed life support with their physicians; however, an additional 47 percent desired such discussions. CONCLUSION: Hospitalized medical patients base their preferences for life support upon perceived outcomes. Lack of communication creates the potential for patients to be subjected to burdensome and expensive treatments they may not desire. We encourage physicians to offer their patients discussions about prognosis and the efficacy of life support so that disproportionate treatments can be avoided.
Keywords: Attitude to Health; Inpatients--psychology; Life Support Care--psychology; Patients--

psychology; Other Subjects (MeSH): Communication; Intensive Care Units; Patient Acceptance of Health Care; Patient Compliance; Physician-Patient Relations; Prospective Studies; Questionnaires; Limits: Adult; Human

Author: Freedman VA
Title: Family structure and the risk of nursing home admission
Journal: Journal of Gerontology. Series B, Psychological Sciences and Social Sciences
Year: 1996 Mar
Volume: 51
Number: 2
Pages: S61-S69
Notes: Elderly Epidemiology
Abstract: Given the high costs associated with institutionalization, understanding factors related to nursing home admissions is of considerable interest. The family is particularly relevant to a discussion of nursing home admission, given its critical role in providing care to older disabled persons. Using data from the New Haven EPESE, we examine the relationship between family structure and the risk of first nursing home admission. Family structure is defined more broadly than in most previous studies and includes not only the spouse, but also sons, daughters, and siblings. Because of the relatively lengthy follow-up period of the EPESE, we are able to depart from previous methodological conventions, adopting a continuous time survival model with age at admission as the outcome and time-varying measures of family structure and health. Results show that married older persons have about half the risk of nursing home admission of unmarried persons, and that having at least one daughter or sibling reduces an older person's chance of admission by about one-fourth.
Keywords: Family; Long-Term Care; Nursing Homes; Age Factors; Marital Status; Risk Factors; Limits: Aged; Female; Human; Male

Author: Fried LP, Guralnik JM
Title: Disability in older adults: evidence regarding significance, etiology, and risk
Journal: Journal of the American Geriatrics Society
Year: 1997 Jan
Volume: 45
Number: 1
Pages: 92-100
Notes: Function
Abstract: OBJECTIVES: This article synthesizes and assesses current evidence about the importance of physical disability to older adults. It then considers the applications of research findings to clinical geriatrics practice. RESULTS: Physical disability is a major adverse health outcome associated with aging. Certain subgroups of older adults, including individuals with mobility difficulty, with preclinical functional changes, and persons who are hospitalized, are at particularly high risk of becoming disabled or experiencing disability progression. The major underlying causes of physical disability are chronic diseases, including both acute events, such as hip fracture and stroke and slowly progressive diseases such as arthritis and heart disease. These diseases appear to have task-specific effects; understanding this may assist in setting treatment and prevention goals. Comorbidity, particularly certain combinations of chronic diseases, is a strong risk factor for disability in itself. Recent trials indicate that clinical interventions may be able to prevent onset or progression of disability. CONCLUSIONS: Available evidence now suggests clinical approaches to both treatment and prevention of disability and directions for defining optimal clinical care for the future.
Keywords: Disability Evaluation; Geriatric Assessment; Other Subjects (MeSH): Comorbidity; Limits: Aged; Aged, 80 and over; Female; Human; Male

Author: Gambassi G, Lapane K, Sgadari A, Landi F, Carbonin P, Hume A, Lipsitz L, Mor V, Bernabei R
Title: Prevalence, clinical correlates, and treatment of hypertension in elderly nursing home residents. SAGE (Systematic Assessment of Geriatric Drug Use via Epidemiology) Study

Group
Journal: Archives of Internal Medicine
Year: 1998 Nov 23
Volume: 158
Number: 21
Pages: 2377-2385
Notes: Hypertension
Abstract: BACKGROUND: Hypertension is prevalent in the elderly, but an information gap remains regarding the old, frail, individuals with complex conditions living in long-term care. OBJECTIVE: To analyze the patterns of antihypertensive drug therapy among elderly patients living in nursing homes to elucidate their conformity with consensus guidelines. SUBJECTS AND METHODS: We used a long-term care database that merged sociodemographic, functional, clinical, and treatment information on nearly 300000 patients admitted to the facilities of 5 US states between 1992 and 1994. RESULTS: Hypertension was diagnosed in 80206 patients (mean age, 82.7+/-7.8 years). The prevalence was higher among women and among blacks. About one fourth of patients had 6 or more comorbid conditions; 26%, 22%, and 29% had concomitant diagnoses of coronary heart disease, congestive heart failure, and cerebrovascular disease, respectively. Seventy percent of patients were treated pharmacologically. Calcium channel blockers were the most common agents (26%), followed by diuretics (25%), angiotensin-converting enzyme inhibitors (22%), and beta-blockers (8%). The relative use of these drugs changed according to the presence of other cardiovascular conditions. Adjusting for potential confounders, the relative odds of receiving antihypertensive therapy were significantly decreased for the oldest subjects (> or =85 years old: odds ratio, 0.85; 95% confidence interval, 0.81-0.89) and those with marked impairment of physical (odds ratio, 0.77; 95% confidence interval, 0.73-0.81) and cognitive (odds ratio, 0.67; 95% confidence interval, 0.64-0.70) function. CONCLUSIONS: Among very old, frail hypertensive patients living in nursing homes, the pattern of treatment seems not to follow recommended guidelines; age, functional status, and comorbidity appear to be important determinants of treatment choice.
Keywords: Hypertension--epidemiology; Nursing Homes--statistics & numerical data; Other Subjects (MeSH): Adrenergic beta-Antagonists--therapeutic use; Age Factors; Angiotensin-Converting Enzyme Inhibitors--therapeutic use; Antihypertensive Agents--therapeutic use; Calcium Channel Blockers--therapeutic use; Cerebrovascular Disorders--epidemiology; Comorbidity; Confidence Intervals; Confounding Factors (Epidemiology); Coronary Disease--epidemiology; Databases; Diuretics--therapeutic use; Frail Elderly--statistics & numerical data; Heart Failure, Congestive--epidemiology; Hypertension--drug therapy; Long-Term Care--statistics & numerical data; Negroid Race; Odds Ratio; Practice Guidelines; Prevalence; Sex Factors; United States--epidemiology; Limits: Aged; Aged, 80 and over; Female; Human; Male

Author: Gambert SR, Gupta KL
Title: Preventive care: what it's worth in geriatrics
Journal: Geriatrics
Year: 1989 Aug
Volume: 44
Number: 8
Pages: 61-6, 71
Notes: Screening and Prevention
Abstract: Though aging is a lifelong process, many persons think of their aging only late in their lives. By this time many have in fact accelerated their aging or developed diseases that may otherwise never have occurred. This article focuses on measures that, if followed throughout one's lifetime, may improve functional status during one's later years. Environmental factors and diet are a few of the areas discussed.
Keywords: Geriatrics; Preventive Medicine--methods; Other Subjects (MeSH): Aging--physiology; Diet; Exercise; Hearing Loss, Noise-Induced--prevention & control; Life Style; Lung--physiology; Smoking--adverse effects; Stress--prevention & control; Toxins--adverse effects; Vaccination; Limits: Aged; Female; Human; Male

Author: Garahan MB, Waller JA, Houghton M, Tisdale WA, Runge CF

Title: Hearing loss prevalence and management in nursing home residents

Journal: Journal of the American Geriatrics Society

Year: 1992 Feb

Volume: 40

Number: 2

Pages: 130-134

Notes: Hearing Loss

Abstract: OBJECTIVES: To determine the prevalence and management of hearing loss and hearing handicap among non-demented nursing home residents. DESIGN: Descriptive study of total population of two nursing homes. PARTICIPANTS: All 121 eligible residents. SETTINGS: Two nursing homes. MINI OUTCOME MEASURES: Audiometry, questionnaires of nurses and subjects regarding perceived hearing handicap, and documentation in medical records of hearing loss. RESULTS: 77% had at least a mild (greater than or equal to 26 dB Hearing Level) hearing loss in the better ear, and 51% had a moderate to severe loss (greater than or equal to 41 dB HL). Self-assessments of hearing handicap by residents, together with audiometric findings and expressed interest in a hearing aid, were more useful guides for aural rehabilitation needs than were nurses' assessments of residents' handicaps. Medical records failed to identify 48% of residents with moderate to severe hearing losses. Fifty-eight percent of residents with severe hearing loss currently had hearing aids, and 38% more would like to have an aid. CONCLUSIONS: Residents should have hearing evaluations with documentation of results on admission and periodically under the direction of a nurse trained as a hearing specialist. Environmental modifications of the NH plus use of hearing aids can improve hearing.

Keywords: Hearing Loss, Partial--diagnosis; Nursing Homes; Other Subjects (MeSH): Audiometry, Pure-Tone; Hearing Aids; Hearing Loss, Partial--etiology; Hearing Loss, Partial--therapy; Nursing Assessment; Self Assessment (Psychology); Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age

Author: Gates GA, Rees TS

Title: Hear ye? Hear ye Successful auditory aging

Journal: Western Journal of Medicine

Year: 1997 Oct

Volume: 167

Number: 4

Pages: 247-252

Notes: Hearing Loss

Abstract: Age-related hearing loss (presbycusis) is a multifactorial process that affects nearly all people in their senior years. Most cases are due to a loss of cochlear hair cell function and are well mediated by communication courtesy and modern amplification technology. Severe hearing loss is generally due to cochlear problems or age-related diseases and may require speech reading, assistive listening devices, and cochlear implants, depending on the degree of loss. Presbycusis may seriously impair communication and contribute to isolation, depression, and possibly dementia. Accurate diagnosis and prompt remediation are widely available but are frequently underused. Geriatric health care and well-being is enhanced by the detection and remediation of communication disorders.

Keywords: Aging; Hearing Aids; Hearing Disorders--physiopathology; Hearing Disorders--therapy; Rehabilitation of Hearing Impaired--methods; Other Subjects (MeSH): Auditory Perception; Auditory Threshold; Hearing Disorders--diagnosis; Presbycusis--diagnosis; Presbycusis--physiopathology; Presbycusis--therapy; Prognosis; Limits: Aged; Female; Human; Male

Author: Giugliano RP, Camargo CA Jr., Lloyd-Jones DM, Zagrodsky JD, Alexis JD, Eagle KA, Fuster V, O'Donnell CJ

Title: Elderly patients receive less aggressive medical and invasive management of unstable angina: potential impact of practice guidelines

Journal: Archives of Internal Medicine

Year: 1998 May 25
Volume: 158
Number: 10
Pages: 1113-1120
Notes: Ischemic Heart Disease
Abstract: BACKGROUND: The Agency for Health Care Policy and Research (AHCPR) released a practice guideline on the diagnosis and management of unstable angina in 1994. OBJECTIVE: To examine practice variation across the age spectrum in the management of patients hospitalized with unstable angina 2 years before release of the AHCPR guideline. DESIGN: Retrospective cohort. SETTING: Urban academic hospital. PATIENTS: All nonreferral patients diagnosed as having unstable angina who were hospitalized directly from the emergency department to the intensive care or telemetry unit between October 1, 1991, and September 30, 1992. MEASUREMENTS: Percentage of eligible patients receiving medical treatment concordant with 8 important AHCPR guideline recommendations. RESULTS: Half of the 280 patients were older than 66 years; women were older than men on average (70 vs 64 years; P<.001). After excluding those with contraindications to therapy, patients in the oldest quartile (age, 75.20-93.37 years) were less likely than younger patients to receive aspirin (P<.009), beta-blockers (P<.04), and referral for cardiac catheterization (P<.001). Overall guideline concordance weighted for the number of eligible patients declined with increasing age (87.4%, 87.4%, 84.0%, and 74.9% for age quartiles 1 to 4, respectively; chi2, P<.001). Increasing age, the presence of congestive heart failure at presentation, a history of congestive heart failure, previous myocardial infarction, increasing comorbidity, and elevated creatinine concentration were associated with care that was less concordant with AHCPR guideline recommendations; only age and congestive heart failure at presentation remained significant in the multivariate analysis (odds ratios, 1.28 per decade [95% confidence interval, 1.02-1.61] and 3.16 [95% confidence interval, 1.57-6.36], respectively). CONCLUSIONS: Older patients were less likely to receive standard therapies for unstable angina before release of the 1994 AHCPR guideline. Patients presenting with congestive heart failure also received care that was more discordant with guideline recommendations. The AHCPR guideline allows identification of patients who receive nonstandard care and, if applied to those patients with the greatest likelihood to benefit, could lead to improved health care delivery.
Keywords: Age Factors; Angina, Unstable--diagnosis; Angina, Unstable--drug therapy; Physician's Practice Patterns; Other Subjects (MeSH): Angina, Unstable--complications; Heart Failure, Congestive--etiology; Multivariate Analysis; Practice Guidelines; Retrospective Studies; Risk Factors; Limits: Aged; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Goldberg RJ, Gore JM, Gurwitz JH, Alpert JS, Brady P, Strohsnitter W, Chen ZY, Dalen JE
Title: The impact of age on the incidence and prognosis of initial acute myocardial infarction: the Worcester Heart Attack Study.
Journal: American Heart Journal.
Year: 1989 Mar
Volume: 117
Number: 3
Pages: 543-549
Notes: Ischemic Heart Disease
Abstract: As part of a community-wide study examining time trends in the incidence and case-fatality rates (CFR) of patients hospitalized with acute myocardial infarction (MI) in sixteen hospitals in the Worcester, Massachusetts metropolitan area, the association of age to the incidence rates of initial acute MI and to in-hospital and long-term survival among 2115 patients with validated acute MI was examined. After selected age-specific changes in the incidence rates of initial events of acute MI between 1975 and 1981, the incidence rates of acute MI markedly declined between 1981 and 1984, resulting in decreases in the age-specific incidence rates of initial acute MI between 1975 and 1984. For the combined study periods, the in-hospital CFR of acute MI increased from 5.0% in patients less than 55 years of age to 7.9% in those 55 to 64 years, to 16.1% in those 65 to 74 years and to 32.1% in patients 75 years of age and older. Among discharged hospital survivors, increasing age was related to poorer long-term survival over a 5-year follow-up period. The results of this population-based study reinforce the need for, and importance of, modification of coronary risk factors in both young and older individuals,

and of focused therapeutic efforts to salvage jeopardized myocardium in elderly patients hospitalized with acute MI.
Keywords: Myocardial Infarction--mortality; Other Subjects (MeSH): Age Factors; Creatine Kinase--blood; Digoxin--therapeutic use; Electrocardiography; Heart Failure, Congestive--mortality; Myocardial Infarction--drug therapy; Prognosis; Risk Factors; Massachusetts; Limits: Adult; Aged; Female; Human; Male; Middle Age

Author: Gottlieb GL
Title: Sleep disorders and their management. Special considerations in the elderly
Journal: American Journal of Medicine
Year: 1990 Mar 2
Volume: 88
Number: 3A
Pages: 29S-33S
Notes: Sleep Disorders
Abstract: Complaints of insomnia and disordered sleep are pervasive among the elderly, and reduced total sleep time and changes in sleep architecture are considered to be normal in the aging process. Additionally, numerous medical and psychiatric disorders that are highly prevalent in the geriatric population are known to affect sleep adversely. Epidemiologic data indicate that at least 5 million older adults suffer severe disorders of sleep and that most people with severe insomnia receive no treatment for this troubling symptom. However, although the elderly comprise only about 12 percent of the American population, between 35 and 40 percent of all prescriptions for sedative hypnotics are written for people over the age of 60. Moreover, approximately 23 percent of Americans over age 85 reside in long-term care facilities, and institutionalization is an important risk factor for disordered sleep and for sedative hypnotic prescription. Consequently, the evaluation of any sedative hypnotic agent must include substantial assessment of efficacy, safety, and tolerance in geriatric patients.
Keywords: Aging--physiology; Anti-Anxiety Agents, Benzodiazepine--therapeutic use; Sleep Disorders--drug therapy; Other Subjects (MeSH): Anti-Anxiety Agents, Benzodiazepine--pharmacology; Limits: Aged; Female; Human; Male

Author: Gray-Donald K, Payette H, Boutier V
Title: Randomized clinical trial of nutritional supplementation shows little effect on functional status among free-living frail elderly
Journal: Journal of Nutrition
Year: 1995 Dec
Volume: 125
Number: 12
Pages: 2965-2971
Notes: Malnutrition
Abstract: Nutritional deficiencies, frequently observed among the frail elderly, have been associated with increased morbidity and dependency. A randomized clinical trial was conducted to assess the impact of nutritional supplementation on the functional status of frail elderly living at home. Subjects (n = 50) over age 60 (mean 78 y) requiring community services and at elevated risk of undernutrition (excessive weight loss or body mass index < 24 kg/m2) were randomized to a high energy nutrient dense supplement provided by a dietitian or a control group receiving visits only. Outcome measures, including changes in handgrip strength, general well-being score, perception of health and number of falls, were measured by an investigator who was unaware of treatment assignment. After 12 wk, weight gain was greater in the supplemented group (2.1 +/- 2.3 vs. 0.6 +/- 1.6 kg; P < 0.01). Despite adequate statistical power, no functional measures differed except that the number of falls was lower among treated subjects vs. controls (0% vs. 21%; P = 0.05). Frail elderly can gain weight through oral supplementation, indicating the reversibility of weight loss in this group, but changes in functional status indicators may require a longer period of supplementation.
Keywords: Carbohydrates--standards; Food, Formulated--standards; Food, Fortified--standards; Frail Elderly; Health Status; Other Subjects (MeSH): Analysis of Variance; Anthropometry; Body

Mass Index; Carbohydrates--pharmacology; Hand Strength--physiology; Home Care Services; Weight Gain--drug effects; Weight Gain--physiology; Weight Loss--drug effects; Weight Loss--physiology; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't.

Author: Guralnik JM, Fried LP, Salive ME
Title: Disability as a public health outcome in the aging population
Journal: Annual Review of Public Health
Year: 1996
Volume: 17
Number:
Pages: 25-46
Notes: Function
Abstract: Improvements in life expectancy in the twentieth century have resulted from major declines in mortality at younger ages, but it is less well recognized that mortality declines at older ages have also played a substantial role in prolonging expectation of life. A person reaching age 65 in 1900 could expect to live an additional 11.9 years. Life expectancy at age 65 rose to 14.4 years by 1960 and then increased by about three years in the next three decades, reaching 17.5 years in 1992 (56, 70). As a greater proportion of the population survives to very old ages, the public health impact of the burden of disease and disability and related utilization of medical care and need for supportive and long-term care has become an important concern. In particular, the ability of the older person to function independently in the community is a critically important public health issue. A growing body of research in the last decade has addressed the measurement of disability, factors related to its onset, consequences of disability, and the potential for preventive interventions. This article summarizes the state of the art in these areas and discusses their public health relevance.
Keywords: Cost of Illness; Disabled Persons; Outcome Assessment (Health Care); Public Health; Aged; Other Subjects (MeSH): Activities of Daily Living; Disabled Persons--statistics & numerical data; Geriatric Assessment; Health Services for the Aged; Health Services Needs and Demand; Life Expectancy; Morbidity; Prevalence; Limits: Human

Author: Henderson CT, Trumbore LS, Mobarhan S, Benya R, Miles TP
Title: Prolonged tube feeding in long-term care: nutritional status and clinical outcomes
Journal: Journal of the American College of Nutrition
Year: 1992 Jun
Volume: 11
Number: 3
Pages: 309-325
Notes: Malnutrition
Abstract: This study examines nutritional status and clinical outcomes, including pressure ulcers and death in 40 chronically tube-fed long-term care patients. Anthropometric, biochemical, clinical and dietary data were collected over a 3-month period, with follow-up of mortality at 1 year. Subjects' functional and cognitive status was generally poor. Adequate calories and protein were provided, with sample means exceeding standard means for energy, protein and micronutrients. Still, subjects showed weight loss and severe depletion of lean and fat body mass. Mean serum protein and micronutrient status measures were in the low normal range. Hemoglobin, hematocrit, and serum zinc and carotenoid levels were below normal in a sizable proportion of patients. Pressure ulcers were present in 65% of patients. Weight loss was associated with longer time on tube feeding and more pressure ulcers. Negative correlations with ulcer number were observed for cholesterol, albumin, zinc, retinol, alpha-tocopherol and iron. This study shows that despite administration of apparently adequate formula, micronutrient deficiencies and marasmic malnutrition exist in chronically ill patients. Causes may include the combined effects of chronic disease, sepsis, immobility, and severe neurologic deficits. Clinical outcomes may be expressions of an organism-wide diminution of protein synthesis, the cause of which is unknown. For clinical management, serial measures of weight, albumin, cholesterol, hemoglobin and hematocrit are recommended. Future research must

address the many subsets of the population of chronically tube-fed patients.
Keywords: Enteral Nutrition--adverse effects; Nutritional Status; Other Subjects (MeSH): Anthropometry; Cholesterol--blood; Health Status; Long-Term Care; Minerals--blood; Nutrition Disorders--etiology; Prospective Studies; Vitamins--blood; Limits: Adult; Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Herlitz J, Hartford M, Dellborg M, Karlson BW
Title: Optimal treatment after acute myocardial infarction in the elderly
Journal: Drugs and Aging
Year: 1995 Mar
Volume: 6
Number: 3
Pages: 181-191
Notes: Ischemic Heart Disease
Abstract: Elderly patients with acute myocardial infarction (AMI) more often have a previous history of cardiovascular disease than do younger patients. Furthermore, they less frequently present with typical symptoms and a typical electrocardiogram pattern. Whereas age is the most important predictor for mortality after AMI, the relationship between age and morbidity is more complex. Treatment of elderly patients with AMI is very similar to treatment of younger patients. However, the risk of intolerability to various drugs increases with age, and in many instances doses have to be adjusted. In many trials, the number of lives saved with various interventions seem, if anything, to be more numerous among the elderly. However, it should be remembered that experience with various treatments in the elderly (patients aged > 80 years) is limited. Whether experiences with people aged up to 80 years can be extrapolated to higher age groups is debatable. With increasing age, there is an increased frequency of other disabling diseases, as well as generalised atherosclerosis. It might very well be that even in the elderly it is possible to relieve symptoms and improve morbidity, even though the effects on the prognosis are likely to be less marked.
Keywords: Aging--physiology; Myocardial Infarction--therapy; Other Subjects (MeSH): Clinical Trials; Myocardial Infarction--complications; Myocardial Infarction--drug therapy; Myocardial Infarction--surgery; Limits: Aged; Aged, 80 and over; Human

Author: Hesse KA
Title: Terminal care of the very old. Changes in the way we die
Journal: Archives of Internal Medicine
Year: 1995 Jul 24
Volume: 155
Number: 14
Pages: 1513-1518
Notes: End of Life
Abstract: BACKGROUND: This study examines the use of advance directives, limitations of treatment, and medical interventions during the terminal hospitalization of the old-old. Study periods before and after the implementation of the Patient Self-Determination Act of 1990 were chosen to determine if there has been a change in terminal care. METHODS: Chart review was performed for all patients 85 years and older who died in the hospital during 1988 and 1993. Patient characteristics, presence of advance directives, do-not-resuscitate orders, and other treatment limitations were noted as were interventions listed in the Medical Directive. RESULTS: Less than 12% of the 167 study patients had an advance directive. Length of stay for these terminal admissions decreased from 18.5 to 9.6 days. Ninety-five percent of the patients were "do not resuscitate" by time of death, but orders were written sooner in 1993--75% within 24 hours of admission. Patients with early do-not-resuscitate orders had fewer high-intensity interventions. More patients had "comfort measures only" during the study period. An overall decrease in high-intensity interventions and a specific decrease in the use of transfusions, invasive tests, minor surgery, and cardiopulmonary resuscitation was seen. CONCLUSION: Patients 85 years and older are receiving fewer high-intensity interventions during their terminal hospitalizations. More attention is being paid to comfort and few are

receiving cardiopulmonary resuscitation. There is little reference to formal advance directives in decision making for these patients.
Keywords: Advance Directives; Patient Participation; Resuscitation Orders; Terminal Care--methods; Other Subjects (MeSH): Medical Records; Patient Participation--legislation & jurisprudence; Retrospective Studies; United States; Limits: Aged; Aged, 80 and over; Female; Human; Male

Author: High DM
Title: Advance directives and the elderly: a study of intervention strategies to increase use
Journal: Gerontologist
Year: 1993 Jun
Volume: 33
Number: 3
Pages: 342-349
Notes: End of Life
Abstract: This study tested the efficacy of educational interventions to increase the use of advance directives among the elderly. Three types of educational materials, various community-dwelling populations of older people (n = 293), and offers of free legal assistance were examined. Interventions increased use slightly, not dramatically, especially with the group receiving a moderate level of materials plus an invitation to a meeting. Knowledge and use were also associated with race and education levels. The most common reason given for nonuse was deferring to others and putting it off.
Keywords: Advance Directives; Health Education--methods; Other Subjects (MeSH): Advance Directives--legislation & jurisprudence; Advance Directives--psychology; Counseling; Knowledge, Attitudes, Practice; Motivation; Program Evaluation; Teaching Materials; Kentucky; Limits: Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Hirsch CH, Sommers L, Olsen A, Mullen L, Winograd CH
Title: The natural history of functional morbidity in hospitalized older patients
Journal: Journal of the American Geriatrics Society
Year: 1990 Dec
Volume: 38
Number: 12
Pages: 1296-1303
Notes: Hospitalization
Abstract: This study provides data on changes in the functional status of older patients that are associated with acute hospitalization. Seventy-one patients over the age of 74 admitted to the medical service of Stanford University Hospital between February and May 1987 received functional assessments covering seven domains: mobility, transfer, toileting, incontinence, feeding, grooming, and mental status. Assessments were obtained by report from the patient's caregiver (or the patient when he or she lived alone) for 2 weeks before admission; from the patient's nurse on day 2 of hospitalization and on the day before discharge; and again from the caregiver (or patient) 1 week after discharge. The sample had a mean age of 84, covered 37 Diagnostic Related Groups, and had a median length of stay of 8 days. Between baseline and day 2, statistically significant deteriorations occurred for the overall functional score and for the individual scores for mobility, transfer, toileting, feeding, and grooming. None of these scores improved significantly by discharge. In the case of mobility, 65% of the patients experienced a decline in score between baseline and day 2. Between day 2 and discharge, 67% showed no improvement, and another 10% deteriorated further. These data suggest that older patients may experience a burden of new and worsened functional impairment during hospitalization that improves at a much slower rate than the acute illness. An awareness of delayed functional recovery should influence discharge planning for older patients. Greater efforts to prevent functional decline in the hospitalized older patient may be warranted.
Keywords: Activities of Daily Living; Hospitalization; Aged; Other Subjects (MeSH): Diagnosis-Related Groups; Geriatric Assessment; Prospective Studies; Limits: Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.

Author: Hochberg MC, Perlmutter DL, Hudson JI, Altman RD
Title: Preferences in the management of osteoarthritis of the hip and knee: results of a survey of community-based rheumatologists in the United States
Journal: Arthritis Care and Research
Year: 1996 Jun
Volume: 9
Number: 3
Pages: 170-176
Notes: Osteoarthritis
Abstract: OBJECTIVE: To determine rheumatologists' preferences in the medical management of osteoarthritis (OA) of the hip and knee, and examine possible variations in these preferences. METHODS: A stratified random sample of 1,001 rheumatologists in community-based practice in the United States was surveyed by mail. RESULTS: Responses were obtained form 594 subjects (529 white, 499 male, mean +/- SD age 47.4 +/- 8.1 years). Over 80% used acetaminophen or nonaspirin, nonsteroidal antiinflammatory drugs (NSAIDs) either always or frequently for the management of OA of the hip and knee. A majority used the following nonpharmacologic methods either always or frequently: weight loss, cane or crutch, physical and/or occupational therapy referral, and exercise. Variation in practice preferences was noted by age (< 47 versus > or = 47 years), sex, board certification in rheumatology, and number of patients seen per month. Respondents felt that severe pain and limitation of function were the most important factors in recommending total join arthroplasty for patients. CONCLUSION: These data demonstrate that practicing rheumatologists most often use either acetaminophen and/or NSAIDs in combination with nonpharmacologic methods in the medical management of OA of the hip and knee. The existence of variation in practice preferences has policy implications.
Keywords: Knee Joint; Osteoarthritis--prevention & control; Osteoarthritis, Hip--prevention & control; Physician's Practice Patterns; Rheumatology; Other Subjects (MeSH): Questionnaires; United States; Limits: Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Horn KL, McMahon NB, McMahon DC, Lewis JS, Barker M, Gherini S
Title: Functional use of the Nucleus 22-channel cochlear implant in the elderly
Journal: Laryngoscope
Year: 1991 Mar
Volume: 101
Number: 3
Pages: 284-288
Notes: Hearing Loss
Abstract: A questionnaire was sent to 101 Nucleus 22-channel cochlear implant recipients aged 65 years and older to investigate the perceived impact of cochlear implantation on their quality of life. The questionnaire was designed to gain insight into the patient's daily use of the Nucleus implant. Sixty-seven questionnaires were returned over a 3-month period. The results of the survey showed that elderly cochlear implant patients obtained similar benefits to younger adult patients who were implanted with the same device. We believe that the results of this study will aid other centers when counseling elderly patients on the expected daily functional benefits of this device.
Keywords: Cochlear Implants; Other Subjects (MeSH): Consumer Satisfaction; Hearing; Quality of Life; Questionnaires; Limits: Aged; Human; Support, Non-U.S. Gov't

Author: Hughes SL, Dunlop D
Title: The prevalence and impact of arthritis in older persons
Journal: Arthritis Care and Research
Year: 1995 Dec
Volume: 8
Number: 4
Pages: 257-264

Notes: Osteoarthritis

Abstract: OBJECTIVE: To review that what is known about the prevalence and impact of arthritis on disability and health care expenditures incurred by older persons. METHODS: The current prevalence estimates of osteoarthritis and osteoporosis in the US are examined, and what is known about the relationship of arthritis, broadly defined to disability, and the impact of arthritis-specific disability on home care and nursing home use by older persons are reviewed. RESULTS: Arthritis is a major contributor to disability among older people and is especially disabling for older women, who have higher prevalence rates and greater disability than their male counterparts. Studies of the relationship of arthritis to long-term care use indicate that arthritis can be a risk factor insofar as it can cause disability that results in homeboundedness, which, in turn is a risk factor for nursing home use. It is possible that previous analyses that included arthritis and disability as competing risk factors for nursing home use underestimate the contribution of arthritis because arthritis is a risk factor for disability; thus, the two variables may be strongly correlated. CONCLUSIONS: More study is needed to understand the contribution of sex to prevalence of arthritis and severity of arthritis-specific disability. The route through which arthritis affects long-term care use also needs careful longitudinal study. If arthritis is confirmed to be a major risk factor for disability that leads to long-term care use, the development and testing of interventions to prevent/minimize arthritis-specific disability should be a major research priority.

Keywords: Arthritis; Other Subjects (MeSH): Age Factors; Arthritis--economics; Arthritis--epidemiology; Arthritis--physiopathology; Cost of Illness; Disabled Persons; Health Expenditures; Prevalence; United States--epidemiology; Limits: Aged; Female; Human; Male

Author: Hughes SL, Edelman P, Chang RW, Singer RH, Schuette P
Title: The GERI-AIMS. Reliability and validity of the arthritis impact measurement scales adapted for elderly respondents
Journal: Arthritis and Rheumatism
Year: 1991 Jul
Volume: 34
Number: 7
Pages: 856-865
Notes: Osteoarthritis

Abstract: We adapted the Arthritis Impact Measurement Scales (AIMS) for use with frail elderly respondents. The new instrument, called the GERI-AIMS, generates both generic and arthritis-specific impairment scores, to control for comorbid conditions that are commonly found in an older population. An analysis of scores obtained on 438 elderly persons (mean age 76) indicated that more than half of the total disability measured by the generic GERI-AIMS scores is related to arthritis. The GERI-AIMS scales have standardized-item alpha levels greater than 0.70 and correlate well with clinical measures of arthritis severity. Information gained by using the GERI-AIMS has important public policy implications, insofar as information on both generic and disease-specific functional impairment is needed to establish priorities for basic research, epidemiologic, and intervention studies.

Keywords: Arthritis; Disability Evaluation; Geriatric Assessment; Other Subjects (MeSH): Regression Analysis; Reproducibility of Results; Severity of Illness Index; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Inouye SK, Acampora D, Miller RL, Fulmer T, Hurst LD, Cooney LM Jr.
Title: The Yale Geriatric Care Program: a model of care to prevent functional decline in hospitalized elderly patients.
Journal: Journal of the American Geriatrics Society
Year: 1993 Dec
Volume: 41
Number: 12
Pages: 1345-1352
Notes: Hospitalization

Abstract: OBJECTIVE: To describe the structure and implementation of the Yale Geriatric Care

Program, an innovative, nursing-centered model for developing geriatric nursing expertise throughout an acute-care hospital. DESIGN: Descriptive study of an intervention in a prospective cohort of patients. SETTING: University teaching hospital. PATIENTS: Two hundred forty four patients aged 70 years and older on four non-intensive care intervention units during the study period (July 9, 1990 to July 31, 1991). INTERVENTION: The Geriatric Care Program involved an integrated model of primary nurses, specially trained unit-based geriatric resource nurses, gerontological nurse specialists, and geriatric physicians. The intervention included surveillance and identification of frail older patients, unit-based geriatric educational programs for all nurses, special education and support for the geriatric resource nurses, and twice-weekly rounds of the Geriatric Care Team. RESULTS: The Geriatric Care Program has been successfully implemented on four units. The interventions ranged from general clarification of goals in 226 (92%) to specific recommendations for management of immobility in 100 (41%), bladder/bowel problems in 99 (41%), pressure ulcer treatment or prevention in 61 (25%), confusion evaluation or management in 62 (25%), and adjustment of medications in 43 (18%). Overall, 68% of the specific recommendations were documented to have been implemented. Barriers to implementation of the program have included initial difficulties with recruitment and retainment of geriatric resource nurses (due to high nursing turnover and the increased time commitment required), breakdown in communication and carryover of recommendations between nursing shifts, and obstacles to communication between the nursing and medical staff. CONCLUSIONS: An innovative model of care, in which geriatric nursing was integrated as part of standard nursing care on selected medical and surgical units, has been designed and implemented. Evaluation of the effectiveness and costs of this intervention are currently underway.

Keywords: Activities of Daily Living; Geriatric Nursing--methods; Models, Nursing; Nursing Service, Hospital--organization & administration; Patient Care Team; Other Subjects (MeSH): Education, Nursing, Continuing; Geriatric Assessment; Hospitals, University--organization & administration; Intervention Studies; Outcome and Process Assessment (Health Care); Prospective Studies; Connecticut; Limits: Aged; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Inouye SK, Bogardus ST Jr., Charpentier PA, Leo-Summers L, Acampora D, Holford TR, Cooney LM Jr.
Title: A multicomponent intervention to prevent delirium in hospitalized older patients
Journal: New England Journal of Medicine
Year: 1999 Mar 4
Volume: 340
Number: 9
Pages: 669-676
Notes: Hospitalization
Abstract: BACKGROUND: Since in hospitalized older patients delirium is associated with poor outcomes, we evaluated the effectiveness of a multicomponent strategy for the prevention of delirium. METHODS: We studied 852 patients 70 years of age or older who had been admitted to the general-medicine service at a teaching hospital. Patients from one intervention unit and two usual-care units were enrolled by means of a prospective matching strategy. The intervention consisted of standardized protocols for the management of six risk factors for delirium: cognitive impairment, sleep deprivation, immobility, visual impairment, hearing impairment, and dehydration. Delirium, the primary outcome, was assessed daily until discharge. RESULTS: Delirium developed in 9.9 percent of the intervention group as compared with 15.0 percent of the usual-care group, (matched odds ratio, 0.60; 95 percent confidence interval, 0.39 to 0.92). The total number of days with delirium (105 vs. 161, P=0.02) and the total number of episodes (62 vs. 90, P=0.03) were significantly lower in the intervention group. However, the severity of delirium and recurrence rates were not significantly different. The overall rate of adherence to the intervention was 87 percent, and the total number of targeted risk factors per patient was significantly reduced. Intervention was associated with significant improvement in the degree of cognitive impairment among patients with cognitive impairment at admission and a reduction in the rate of use of sleep medications among all patients. Among the other risk factors per patient there were trends toward improvement in immobility, visual impairment, and hearing impairment. CONCLUSIONS: The risk-factor intervention strategy that

we studied resulted in significant reductions in the number and duration of episodes of delirium in hospitalized older patients. The intervention had no significant effect on the severity of delirium or on recurrence rates; this finding suggests that primary prevention of delirium is probably the most effective treatment strategy.

Keywords: Delirium--prevention & control; Hospitalization; Aged--psychology; Other Subjects (MeSH): Clinical Protocols; Delirium--classification; Delirium--epidemiology; Incidence; Logistic Models; Prospective Studies; Risk Factors; Treatment Outcome; Aged, 80 and over--psychology; Limits: Comparative Study; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Inouye SK, Rushing JT, Foreman MD, Palmer RM, Pompei P
Title: Does delirium contribute to poor hospital outcomes? A three-site epidemiologic study
Journal: Journal of General Internal Medicine
Year: 1998 Apr
Volume: 13
Number: 4
Pages: 234-242
Notes: Hospitalization
Abstract: OBJECTIVE: To determine the independent contribution of admission delirium to hospital outcomes including mortality, institutionalization, and functional decline. DESIGN: Three prospective cohort studies. SETTING: Three university-affiliated teaching hospitals. PATIENTS: Consecutive samples of 727 patients, aged 65 years and older. MEASUREMENTS AND MAIN RESULTS: Delirium was present at admission in 88 (12%) of 727 patients. The main outcome measures at hospital discharge and 3-month follow-up were death, new nursing home placement, death or new nursing home placement, and functional decline. At hospital discharge, new nursing home placement occurred in 60 (9%) of 692 patients, and the adjusted odds ratio (OR) for delirium, controlling for baseline covariates of age, gender, dementia, APACHE II score, and functional measures, was 3.0, (95% confidence interval [CI] 1.4, 6.2). Death or new nursing home placement occurred in 95 (13%) of 727 patients (adjusted OR for delirium 2.1, 95% CI 1.1, 4.0). The findings were replicated across all sites. The associations between delirium and death alone (in 35 [5%] of 727 patients) and between delirium and length of stay were not statistically significant. At 3-month follow-up, new nursing home placement occurred in 77 (13%) of 600 patients (adjusted OR for delirium 3.0; 95% CI 1.5, 6.0). Death or new nursing home placement occurred in 165 (25%) of 663 patients (adjusted OR for delirium 2.6; 95% CI 1.4, 4.5). The findings were replicated across all sites. For death alone (in 98 [14%] of 680 patients), the adjusted OR for delirium was 1.6 (95% CI 0.8, 3.2). Delirium was a significant predictor of functional decline at both hospital discharge (adjusted OR 3.0; 95% CI 1.6, 5.8) and follow-up (adjusted OR 2.7; 95% CI 1.4, 5.2). CONCLUSIONS: Delirium is an important independent prognostic determinant of hospital outcomes including new nursing home placement, death or new nursing home placement, and functional decline-even after controlling for age, gender, dementia, illness severity, and functional status. Thus, delirium should be considered as a prognostic variable in case-mix adjustment systems and in studies examining hospital outcomes in older persons.
Keywords: Delirium; Other Subjects (MeSH): Activities of Daily Living; Hospital Mortality; Hospitalization; Prognosis; Prospective Studies; Limits: Aged; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Inouye SK, Wagner DR, Acampora D, Horwitz RI, Cooney LM Jr., Hurst LD, Tinetti ME
Title: A predictive index for functional decline in hospitalized elderly medical patients
Journal: Journal of General Internal Medicine
Year: 1993 Dec
Volume: 8
Number: 12
Pages: 645-652
Notes: Hospitalization
Abstract: OBJECTIVE: To prospectively develop and validate a predictive index to identify on admission

elderly hospitalized medical patients at risk for functional decline. DESIGN: Two prospective cohort studies, in tandem. The predictive model developed in the initial cohort was subsequently validated in a separate cohort. SETTING: General medical wards of a university teaching hospital. PATIENTS: For the development cohort, 188 hospitalized general medical patients aged > or = 70 years. For the validation cohort, 142 comparable patients. MEASUREMENT AND MAIN RESULTS: The subjects and their nurses were interviewed twice weekly using standardized, validated instruments. Functional decline occurred among 51/188 (27%) patients in the development cohort. Four independent baseline risk factors (RFs) for functional decline were identified: decubitus ulcer (adjusted relative risk [RR] 2.7; 95% confidence interval [CI] 1.4, 5.2); cognitive impairment (RR 1.7; CI 0.9, 3.1); functional impairment (RR 1.8; CI 1.0, 3.3); and low social activity level (RR 2.4; CI 1.2, 5.1). A risk-stratification system was developed by adding the numbers of RFs. Rates of functional decline for the low- (0 RF), intermediate- (1-2 RFs), and high- (3-4 RFs) risk groups were 8%, 28%, and 63%, respectively (p < 0.0001). The corresponding rates in the validation cohort, of whom 34/142 (24%) developed functional decline, were 6%, 29%, and 83% (p < 0.0001). The rates of death or nursing home placement, clinical outcomes associated with functional decline in the hospital, were 6%, 19%, and 41% (p < 0.002) in the development cohort and 10%, 32%, and 67% (p < 0.001) in the validation cohort, respectively, for the three risk groups. CONCLUSIONS: Functional decline among hospitalized elderly patients is common, and a simple predictive model based on four risk factors can be used on admission to identify elderly persons at greatest risk.

Keywords: Activities of Daily Living; Geriatric Assessment; Hospitals, University--utilization; Other Subjects (MeSH): Chi-Square Distribution; Cohort Studies; Hospital Bed Capacity, 500 and over; Likelihood Functions; Multivariate Analysis; Prevalence; Proportional Hazards Models; Prospective Studies; Reproducibility of Results; Risk Factors; Single-Blind Method; Connecticut; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Jarrett PG, Rockwood K, Carver D, Stolee P, Cosway S
Title: Illness presentation in elderly patients
Journal: Archives of Internal Medicine
Year: 1995 May 22
Volume: 155
Number: 10
Pages: 1060-1064
Notes: Falls and Mobility Problems
Abstract: BACKGROUND: Atypical disease presentations, such as delirium, are associated with adverse health outcomes. They are also markers of frailty in elderly people, which is itself associated with adverse hospital outcomes. We investigated the relationship between frailty and atypical disease presentation in predicting adverse hospital outcomes and complications of the hospital course of elderly patients admitted to general medical services. METHODS: We conducted a cohort study in a large (800 beds) tertiary care university hospital. The prevalence of atypical disease presentations and the incidence of adverse hospital outcomes (death, nursing home admission, prolonged hospital stay, and failure to regain premorbid functional status) were studied in previously well and previously frail elderly patients. RESULTS: Patients were classified as being well or frail on the basis of the premorbid Barthel Index (well, score of > or = 95 [n = 76]; frail, score of < 95 [n = 117]). Frail elderly were older (80 vs 76 years), more often female (62% vs 46%), and less likely to be community dwelling (89% vs 99%). Atypical disease presentation was more common in the frail elderly (59% vs 25%; P < .001). Of those who presented atypically, the frail most often presented with delirium (61%) and the well presented with falls (37%) and delirium (32%). Of the frail elderly with atypical symptoms, 60% had adverse hospital outcomes compared with 32% of the well elderly who presented typically (P < .05). Logistic regression analysis showed that premorbid functional dependence (odds ratio, 2.48; 95% confidence interval, 1.17 to 5.22), atypical disease presentation (odds ratio, 2.37; 95% confidence interval, 1.20 to 4.67), and functional decline at admission (odds ratio, 5.64; 95% confidence interval, 2.37 to 13.44) were all independently predictive of poor hospital outcomes. By contrast, severity of disease, age, and sex did not confer an increased risk of adverse events. CONCLUSIONS: Premorbid functional dependency, atypical disease

presentation, and functional decline on admission have independent impacts on adverse hospital outcomes. Assessment of each should be incorporated into the routine care of elderly patients.
Keywords: Frail Elderly; Health Status; Hospitalization; Other Subjects (MeSH): Activities of Daily Living; Cohort Studies; Diagnosis-Related Groups; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't.

Author: Jensen GL, Kita K, Fish J, Heydt D, Frey C
Title: Nutrition risk screening characteristics of rural older persons: relation to functional limitations and health care charges
Journal: American Journal of Clinical Nutrition
Year: 1997 Oct
Volume: 66
Number: 4
Pages: 819-828
Notes: Malnutrition
Abstract: This study was intended to characterize a rural population of older persons through nutrition screening and relate screening items to functional limitations and health care charges. There were 5373 participants (2522 males and 2851 females, mean age 71 y) screened over a 22-mo period by using a self-administered questionnaire adapted from the Nutrition Screening Initiative. Height and weight and cholesterol and albumin concentrations were measured, and health care claims data were obtained. The most frequent screening items reported were use of > or = 3 medications (41%) and food group intakes below recommended frequencies (> 50%). There were significant ($P < 0.05$) sex differences in affirmative responses to screening items and in likelihood of exceeding proposed threshold values for risk status assigned for body mass index (BMI; in kg/m2), albumin, or cholesterol. Overweight status was notable, with one-half of all subjects having BMIs > 27. Stepwise modeling procedures were used to identify screening items with the ability to predict self-reported functional limitation (logistic regression) and monthly average recorded health care charges (linear regression on logged charges). Age > or = 75 y, use of > or = 3 medications, and an albumin concentration < 35.0 g/L were significant predictors of both functional limitation and health care charges. Poor appetite, eating problems, income < $6000/y, eating alone, and depression were significant predictors of functional limitation but not health care charges. Being male, loss of 10 lb (4.5 kg), BMI > 27, cholesterol concentration < 4.14 or > 6.21 mmol/L, and functional limitation were significant predictors of health care charges only. These findings suggest that selected screening items may have be useful in the identification of subjects at potential risk for these outcomes.
Keywords: Activities of Daily Living; Health Care Costs--statistics & numerical data; Nutrition Disorders--epidemiology; Nutrition Surveys; Rural Health--statistics & numerical data; Other Subjects (MeSH): Body Mass Index; Cholesterol--blood; Nutrition Disorders--economics; Prospective Studies; Questionnaires; Regression Analysis; Risk Factors; Serum Albumin--analysis; Sex Distribution; Pennsylvania--epidemiology; Limits: Aged; Comparative Study; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.

Author: Jerger J, Chmiel R, Wilson N, Luchi R
Title: Hearing impairment in older adults: new concepts
Journal: Journal of the American Geriatrics Society
Year: 1995 Aug
Volume: 43
Number: 8
Pages: 928-935
Notes: Hearing Loss
Abstract: OBJECTIVE: To review present information about the epidemiology, etiologies, pathogenesis, evaluation, and quality of life aspects of hearing loss and to present an approach to rehabilitation for hearing loss in older adults. DESIGN: A survey of recent findings on the problem of hearing loss in older adults, efficacy of intervention with amplification, and new developments in intervention strategies. CONCLUSIONS: The complex nature of hearing

problems in older adults involves changes in the auditory periphery as well as in the central mechanisms for processing sound input. These changes affect the social and emotional impact of the hearing disorder. The importance of understanding the many implications of hearing loss on quality of life is emphasized. Both older adults and immediate family members need information and advice about the consequences of age-related hearing loss. The physician has a key role in helping them to overcome negative attitudes toward a hearing handicap. For most older persons, hearing aids alleviate many of the handicaps of hearing impairment. For some older persons who do not benefit adequately from conventional hearing aids, assistive listening devices may be helpful. Many old persons and their relatives are reluctant to confront the reality of hearing handicap and try to hide the fact that they need sound amplification. One important future direction is to foster acceptance of hearing loss and to support the more open use of amplification systems.

Keywords: Hearing Disorders; Other Subjects (MeSH): Hearing Aids; Hearing Disorders--diagnosis; Hearing Disorders--etiology; Hearing Disorders--psychology; Hearing Disorders--therapy; Patient Education; Quality of Life; Limits: Aged; Human.

Author: Johnson LE, Dooley PA, Gleick JB
Title: Oral nutritional supplement use in elderly nursing home patients
Journal: Journal of the American Geriatrics Society
Year: 1993 Sep
Volume: 41
Number: 9
Pages: 947-952
Notes: Malnutrition
Abstract: OBJECTIVES: To determine why elderly nursing home patients receive liquid oral protein supplements, what nutritional assessment is utilized, and whether there is evidence of effectiveness. DESIGN: Retrospective, case control study comparing patients over 65 years of age, at two nursing homes, who were served oral supplements (OS) at least twice daily (n = 56), with a random sample of non-supplemented, non-tube fed patients (n = 53). Comparisons included medical diagnoses, medications, morbidity and mortality, weight changes, laboratory test results, and functional and behavioral status. RESULTS: Nursing home patients were begun on OS (median time after admission = 2 months, range = 0-72 months) primarily because of weight loss (71%) and poor appetite (16%). Supplemented patients were below an age-adjusted body weight on admission, unlike controls, and continued to lose weight until OS were started. On OS, weight was slowly regained over 9-10 months in a majority of patients to approximate admission weight. Some patients on OS showed improvement in albumin, total lymphocyte count, cholesterol, or hemoglobin, but too few patients had sufficient lab tests to verify any consistent effect. Mortality was higher in OS patients (8 vs 2, P = 0.057), who were also somewhat older (87.9 vs 84.5 years), but there was no statistical difference in infection or hospitalization rate. MEASUREMENTS: Nutritional assessment in these nursing homes consisted almost exclusively of (1) serial measurement of weight, (2) comparison of weight to (a) "ideal body weight" and (b) previous weight, and (3) a subjective evaluation of food consumption. No other anthropometric evaluations or laboratory tests were conducted for nutritional assessment. CONCLUSIONS: The diagnosis of and intervention in under-nutrition in nursing home patients is frequently disorganized. In addition, nutritional assessment, either for screening or for following intervention, is hampered by the lack of convenient and unambiguous assessment tools. OS use is associated with weight gain in many nursing home patients and also improves other nutritional parameters in selected individuals.
Keywords: Dietary Proteins--administration & dosage; Enteral Nutrition--standards; Enteral Nutrition--utilization; Frail Elderly; Homes for the Aged; Nursing Homes; Nutrition Assessment; Protein-Energy Malnutrition--therapy; Other Subjects (MeSH): Activities of Daily Living; Body Weight; Geriatric Assessment; Hemoglobins--analysis; Leukocyte Count; Lymphocytes; Patient Admission; Protein-Energy Malnutrition--diagnosis; Protein-Energy Malnutrition--mortality; Random Allocation; Retrospective Studies; Sampling Studies; Serum Albumin--analysis; Time Factors; Limits: Aged; Aged, 80 and over; Comparative Study; Female; Human; Male; Support, Non-U.S. Gov't

Author: Joseph CL
Title: Alcohol and drug misuse in the nursing home
Journal: International Journal of the Addictions
Year: 1995 Nov-Dec
Volume: 30
Number: 13-14
Pages: 1953-1984
Notes: Substance Abuse
Abstract: The misuse of alcohol or drugs is a common and frequently neglected problem among nursing home residents. The misuse of prescription medications is particularly prevalent, but tobacco, alcohol, and illicit drugs are all subject of misuse by nursing home residents. This article reviews the epidemiologic and clinical aspects of substance misuse in nursing homes, including alcohol, illicit drugs, tobacco, and pyscho-active medications. Regulations regarding the prescription of psycho-active drugs in nursing homes is also discussed.
Keywords: Nursing Homes; Substance-Related Disorders; Other Subjects (MeSH): Alcoholism--epidemiology; Alcoholism--therapy; Incidence; Nicotine; Street Drugs; Substance-Related Disorders--epidemiology; Substance-Related Disorders--therapy; United States--epidemiology; Limits: Aged; Case Report; Female; Human; Male; Middle Age.

Author: Katz BP, Freund DA, Heck DA ,Dittus RS, Paul JE, Wright J, Coyte P, Holleman E, Hawker G
Title: Demographic variation in the rate of knee replacement: a multi-year analysis
Journal: Health Services Research
Year: 1996 Jun
Volume: 31
Number: 2
Pages: 125-140
Notes: Osteoarthritis
Abstract: OBJECTIVE. The aim of this study is to describe the practice variation of knee replacements (KRs) in the elderly (> or = 65) over time from 1985-1990 in terms of the number of primary, bilateral, and revision KRs; the extent of large area variation in performance rates; and the degree to which demographic variables are the determinants of area rates. DATA SOURCES/STUDY SETTING. Data analyzed are from every hospital in the United States that performed a KR on a Medicare patient during the study period. Data were obtained from the MEDPAR, HISKEW, and denominator files of the Medicare Statistical System. STUDY DESIGN. This is a cohort study of all Medicare beneficiaries who received a KR between 1985 and 1990. The dependent variable in the analyses was the count of the KRs performed in each area. DATA COLLECTION/EXTRACTION METHODS. This is a population-based sample of Medicare enrollees in the United States. All hospitalizations for Medicare-reimbursed KRs were included in the initial data set. Exclusion criteria were used to identify the Medicare covered population with a definite KR. These criteria resulted in 7.3 percent exclusions and a final set of 414,079 KR hospitalizations. PRINCIPAL FINDINGS. The number of Medicare-funded KRs increased in each of the study years corresponding to an annual rate of increase of 18.45 percent. The likelihood of receiving a KR was a function of age, gender, and race. For each year, KRs were almost-twice as likely to be performed on women than on men. The odds of whites getting the surgery were over 1.5 times greater than for blacks. Even after adjusting for demographic factors, significant regional variation remained. CONCLUSIONS. Much about area variation and the rate of growth in KR rates remains unexplained. For answers to emerge, better data and different types of studies are required.
Keywords: Knee Prosthesis--utilization; Physician's Practice Patterns--statistics & numerical data; Other Subjects (MeSH): Age Factors; Cohort Studies; Data Collection; Demography; Knee Prosthesis--statistics & numerical data; Medicare--statistics & numerical data; Medicare--utilization; Models, Statistical; Physician's Practice Patterns--trends; Poisson Distribution; Sex Factors; United States--epidemiology; Limits: Aged; Aged, 80 and over; Comparative Study; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Keay TJ, Fredman L, Taler GA, Datta S, Levenson SA

Title: Indicators of quality medical care for the terminally ill in nursing homes
Journal: Journal of the American Geriatrics Society
Year: 1994 Aug
Volume: 42
Number: 8
Pages: 853-860
Notes: End of Life
Abstract: PURPOSE: To identify medical care indicators for nursing home terminal care. DATA SOURCES: Studies examining care of terminally ill patients were identified using computer, bibliography, and expert searches; input from nursing home medical directors in Maryland; and input from expert geriatricians. STUDY SELECTION: More than 900 articles, books, and abstracts from meetings covering medical care for terminally ill patients were reviewed. Information from more than 100 publications is included. DATA EXTRACTION: Indicators of medical care for terminally ill patients, which can be used to quantify performance with respect to standards, guidelines, and options, were identified initially through review of the literature. DATA SYNTHESIS: Indicators were refined by input from medical directors of Maryland long-term care facilities and subsequent review by expert geriatricians. CONCLUSIONS: Minimum standards for which 100% performance is expected are communication of advance directives, attention to pain control, and attention to relief of dyspnea. Performance indicators for medical care guidelines and options in terminal care of nursing home patients are also described.
Keywords: Nursing Homes--standards; Terminal Care--standards; Total Quality Management; Other Subjects (MeSH): Physician's Role; United States; Limits: Human; Support, Non-U.S. Gov't

Author: Keller HH
Title: Malnutrition in institutionalized elderly: how and why?
Journal: Journal of the American Geriatrics Society
Year: 1993 Nov
Volume: 41
Number: 11
Pages: 1212-1218
Notes: Malnutrition
Abstract: OBJECTIVE: To determine the prevalence of undernutrition and overnutrition in long-term care elderly patients and the functional, behavioral, environmental, nutritional, and medical variables associated with this prevalence. DESIGN: Cross-sectional, observational. SETTING: Long-term care hospital in Canada. SUBJECTS: Two hundred elderly patients (n = 166 male), average age 78.5 years. MEASUREMENTS: Assessment of nutritional status and presence of specific behavioral, medical, environmental, and functional characteristics known to impact on nutritional status. Nutritional status was determined by weight, % weight loss, BMI, skinfolds, arm circumference, area measurements, and % body fat. Multiple regression analyses were performed to identify the factors associated specifically with undernutrition and overnutrition in this population. RESULTS: Severe undernutrition was present in 18% (n = 36) and severe overnutrition in 10% (n = 20). Mild/moderate undernutrition was present in 27.5% (n = 55) and mild/moderate overnutrition in 18% (n = 36). Overnutrition was positively associated with primary diagnosis and number of medications and negatively associated with poor appetite, number of feeding impairments, protein intake, and mental state. Undernutrition was positively associated with dysphagia, slow eating, low protein intake, poor appetite, presence of a feeding tube, and age and negatively associated with primary diagnosis. CONCLUSIONS: Undernutrition exists at a level that is high (45.5%) but not unusual for this type of institutional setting. Behavioral, environmental, and disease-related factors greatly influence nutritional status. Undernutrition appears to be affected by nutritional factors more than overnutrition. Efforts should be directed toward influencing some of these factors to decrease undernutrition in the institutionalized elderly.
Keywords: Deficiency Diseases--epidemiology; Nutrition Disorders--epidemiology; Nutrition Surveys; Obesity--epidemiology; Skilled Nursing Facilities--statistics & numerical data; Other Subjects (MeSH): Cross-Sectional Studies; Deficiency Diseases--diagnosis; Deficiency Diseases--etiology; Diet; Feeding Behavior; Geriatric Assessment; Institutionalization; Linear Models; Nutrition Assessment; Nutrition Disorders--diagnosis; Nutrition Disorders--etiology; Nutritional Status; Obesity--diagnosis; Obesity--etiology; Prevalence; Risk Factors; Severity of Illness

Index; Ontario; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't

Author: Keller HH
Title: Weight gain impacts morbidity and mortality in institutionalized older persons
Journal: Journal of the American Geriatrics Society
Year: 1995 Feb
Volume: 43
Number: 2
Pages: 165-169
Notes: Malnutrition
Abstract: OBJECTIVE: To determine if a significant weight change in previously undernourished older persons is associated with mortality and morbidity. DESIGN: Retrospective survey. SETTING: A chronic care hospital in Canada. SUBJECTS: Follow-up survey from an original data set (Time 1) on 88 previously diagnosed undernourished and 60 adequately nourished. Average age was 78 years; average length of residence was 40 months. Of the 148 subjects, 120 were male. MEASUREMENTS: Average time to follow-up (Time 2) was 319 days from Time 1. Data was collected on weight change, reported incidence of infection, use of antibiotics, number of falls, and admissions to acute centers, as well as incidence and cause of death. Three-day diet intake records were available on 15% of subjects within 1 month of Time 2. Five nutritional groups existed within this follow-up population: those previously undernourished who gained at least 5% of Time 1 weight (Group 1), those undernourished who lost at least 5% of Time 1 weight (Group 2), those undernourished who maintained their weight (Group 3), those adequately nourished who lost at least 5% of original weight (Group 4), and those who remained adequately nourished (Group 5). RESULTS: Forty-one of the 148 patients died; this was significantly associated with nutrition group (X2 = 11.23, P = 0.02), with fewer deaths in Groups 1, 3, and 5. As well, primary diagnosis (x2 = 32.6, P = 0.001), length of residence (X2 = 25.6, P = 0.01), and time to death (X2 = 26.4, P = 0.009) were significantly associated with nutrition group. Diet intake records indicated an improvement in energy and protein intake in Group 1 during the follow-up. Energy and protein change, whether increased or decreased from the original study, was significantly associated with nutrition group. Total number of feeding impairments and presence of dysphagia were significantly associated with nutrition group. Other morbidity events were not significantly associated with nutrition group, but trends suggest a positive effect of weight gain on incidence of falls, incidence of more than two infections, and incidence of recurring infections. CONCLUSIONS: A weight increase of at least 5% of body weight in previously undernourished patients is associated with a decreased incidence of death and may reduce morbidity events. Feeding impairments may affect ability of patients to gain weight, but dysphagia is associated with weight increase. Other nonnutritional variables of diagnosis, number of medications, and declining medical status also affect mortality and morbidity outcomes.
Keywords: Hospital Mortality; Hospitalization; Morbidity; Weight Gain; Other Subjects (MeSH): Accidental Falls; Diet; Infection--complications; Nutrition Disorders--therapy; Retrospective Studies; Limits: Aged; Female; Human; Male; Support, Non-U.S. Gov't

Author: Kelsall DC, Shallop JK, Burnelli T
Title: Cochlear implantation in the elderly
Journal: American Journal of Otology
Year: 1995 Sep
Volume: 16
Number: 5
Pages: 609-615
Notes: Hearing Loss
Abstract: The purpose of this study was to compare the audiologic and surgical results of elderly patients receiving cochlear implants with other adult patients, and to evaluate the benefit of cochlear implantation in the geriatric population. Twenty-eight patients, aged 60 to 80 years, who received the Nucleus 22 channel cochlear implant were studied retrospectively. Mean audiologic test scores increased significantly after implantation. Postoperative audiologic test

scores of this elderly population are comparable to those of a matched group of younger adult patients. The surgical procedure was well tolerated in all elderly patients, and there were two postoperative complications requiring revision procedures. A questionnaire was used to assess implant use and the impact of cochlear implantation on the quality of life in this elderly population. Average implant use per day was 13.8 hours, and 65% of patients were able to recognize voices over the telephone. More than 80% of patients believed that their quality of life had improved significantly, that their self-confidence had increased, and that their decision regarding implantation was correct. The results of this study indicate that elderly patients with bilateral, profound, sensorineural hearing loss should not be denied consideration for cochlear implantation based on age alone.

Keywords: Cochlear Implants; Hearing Loss, Sensorineural--surgery; Patient Satisfaction; Other Subjects (MeSH): Audiometry, Pure-Tone; Pitch Perception; Postoperative Complications; Quality of Life; Questionnaires; Retrospective Studies; Treatment Outcome; Limits: Aged; Aged, 80 and over; Comparative Study; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Klein BE, Klein R, Lee KE, Cruickshanks KJ

Title: Performance-based and self-assessed measures of visual function as related to history of falls, hip fractures, and measured gait time. The Beaver Dam Eye Study

Journal: Ophthalmology

Year: 1998 Jan

Volume: 105

Number: 1

Pages: 160-164

Notes: Vision Care

Abstract: OBJECTIVE: The purpose of the study is to report relationships between visual function parameters and falls, hip fractures, and gait time in adults. DESIGN: Population-based study. PARTICIPANTS: The 3722 persons who participated in the 5-year follow-up of the Beaver Dam Eye Study cohort. MAIN OUTCOME MEASURES: The visual functions measured at the examination were best-corrected visual acuity, current binocular acuity, near acuity, contrast sensitivity, and visual threshold to light. Information on falls and hip fractures was obtained by structured interview. Gait time was measured by standardized protocol. RESULTS: History of falls and hip fractures increased with age, as did time to walk a measured course. Falls were more commonly reported for all persons who had poorer visual function, although not all relationships were significant in persons less than 60 years of age. In persons 60 years of age and older, hip fractures after the age of 40 were significantly related to all measures of visual function. Time to walk a measured course was significantly related to all measures of visual function. CONCLUSIONS: These data indicate a consistent relationship between falls, fractures, gait time, and visual functions. Longitudinal data are necessary to accurately determine temporal relationships and to determine the likelihood of a causal association. In the interim, these data suggest that improving visual function may have benefits such as decreased traumatic events and improved mobility.

Keywords: Accidental Falls; Gait--physiology; Hip Fractures--physiopathology; Vision--physiology; Other Subjects (MeSH): Aging--physiology; Cohort Studies; Contrast Sensitivity--physiology; Follow-Up Studies; Health Status Indicators; Hip Fractures--epidemiology; Hip Fractures--etiology; Self Disclosure; Sensory Thresholds--physiology; Vision, Binocular--physiology; Visual Acuity--physiology; Wisconsin--epidemiology; Limits: Adult; Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Klein R, Klein BE, Linton KL, De Mets DL

Title: The Beaver Dam Eye Study: visual acuity

Journal: Ophthalmology

Year: 1991 Aug

Volume: 98

Number: 8

Pages: 1310-1315

Notes: Vision Care

Abstract: Few current population-based data on visual impairment are available. Visual acuity and impairment were measured in 4926 people between the ages of 43 and 86 years in the defined population participating in the Beaver Dam Eye Study. Visual acuity was measured after refraction, using standardized protocols. Of a possible maximum score of 70 (20/10), the mean number of letters correctly identified (right eye) varied from 55.7 (20/20, n = 1515) in people between the ages of 43 and 54 years to 41.2 (20/40, n = 795) in people 75 years of age or older. Age-specific mean visual acuity scores were consistently and significantly lower in women, who identified three fewer letters on the average than men. Rates of any visual impairment (20/40 or worse in the better eye) or legal blindness (20/200 or worse in the better eye), increased from 0.8% and 0.1%, respectively, in people between the ages of 43 and 54 years to 21.1% and 2.0%, respectively, in people 75 years of age or older. Multivariate analyses showed both sex (women) and age (older) to be significant and independent predictors of poorer visual acuity.

Keywords: Vision Disorders--physiopathology; Visual Acuity; Other Subjects (MeSH): Age Factors; Blindness--epidemiology; Sex Factors; Vision Disorders--epidemiology; Wisconsin--epidemiology; Limits: Adult; Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Kohn RR
Title: Cause of death in very old people
Journal: Journal of the American Medical Association
Year: 1982 May 28
Volume: 247
Number: 20
Pages: 2793-2797
Notes: Pneumonia
Abstract: According to the Vital Statistics, white women have a modal life span of 85 to 90 years, with most individuals dying at around the same age from either ischemic heart disease, cerebrovascular disease, pneumonia, or accidents, or at earlier ages from malignant neoplasms. White men die earlier than women, and nonwhite populations contain two or more subpopulations that die earlier than white populations. Major causes of death listed in Vital Statistics show similar patterns in the aged for all populations. A review of autopsy findings in 200 persons older than 85 years yielded a very different pattern. No acceptable cause of death, other than complications of the aging syndrome, was identified in at least 30% of the cases. Vital Statistics for the aged is misleading because diagnoses are not definitive. Physicians accept causes of death in the aged that would not be acceptable in younger persons, and the role of aging processes themselves as cause of death are not appreciated. Aging is characterized by a universal progressive decline in physiological function to the point where life cannot be maintained in the face of otherwise trivial tissue injury. It is proposed that senescence be viewed as a disease and be accepted as a cause of death.
Keywords: Aging; Mortality; Other Subjects (MeSH): Age Factors; Autopsy; Death Certificates; Life Expectancy; Syndrome; United States; Limits: Aged; Female; Human; Male

Author: Kowalchuk GJ, Siu SC, Lewis SM
Title: Coronary artery disease in the octogenarian: angiographic spectrum and suitability for revascularization
Journal: American Journal of Cardiology
Year: 1990 Dec 1
Volume: 66
Number: 19
Pages: 1319-1323
Notes: Ischemic Heart Disease
Abstract: The angiographic findings of 84 consecutive octogenarians presenting with symptoms of coronary artery disease (CAD) were examined to determine the extent of CAD as well as suitability for both coronary artery bypass grafting (CABG) and percutaneous transluminal coronary angioplasty (PTCA). The frequency of 0-, 1-, 2-, and 3-vessel and left main CAD was 7, 14, 21, 57 and 13%, respectively. Based on angiographic criteria, 69 of 78 patients (88%) with significant CAD had suitable coronary anatomy for CABG. Only 24 patients (31%) had

coronary anatomy amenable to PTCA. CABG was performed in 19 patients with an operative mortality of 16% and major complication rate of 37%. PTCA was performed in 12 patients with a clinical success rate of 83%, mortality of 8% and major complication rate of 8%. It is concluded that in octogenarians with CAD, cardiac catheterization will often reveal coronary anatomy that is suitable for CABG but less suitable for PTCA. The morbidity and mortality associated with these interventions are high.

Keywords: Coronary Artery Bypass; Coronary Disease--radiography; Coronary Disease--therapy; Coronary Vessels--radiography; Other Subjects (MeSH): Angioplasty, Transluminal, Percutaneous Coronary--adverse; effects; Coronary Artery Bypass--adverse effects; Coronary Artery Bypass--mortality; Coronary Disease--etiology; Coronary Disease--physiopathology; Heart Catheterization; Risk Factors; Stroke Volume--physiology; Survival Rate; Limits: Aged; Aged, 80 and over; Female; Human; Male

Author: Landefeld CS, Palmer RM, Kresevic DM, Fortinsky RH, Kowal J
Title: A randomized trial of care in a hospital medical unit especially designed to improve the functional outcomes of acutely ill older patients
Journal: New England Journal of Medicine
Year: 1995 May 18
Volume: 332
Number: 20
Pages: 1338-1344
Notes: Hospitalization
Abstract: BACKGROUND. Older persons who re hospitalized for acute illnesses often lose their independence and are discharged to institutions for long-term care. METHODS. We studied 651 patients 70 years of age or older who were admitted for general medical care at a teaching hospital; these patients were randomly assigned to receive usual care or to be cared for in a special unit designed to help older persons maintain or achieve independence in self-care activities. The key elements of this program were a specially prepared environment (with, for example, uncluttered hallways, large clocks and calendars, and handrails); patient-centered care emphasizing independence, including specific protocols for prevention of disability and for rehabilitation; discharge planning with the goal of returning the patient to his or her home; and intensive review of medical care to minimize the adverse effects of procedures and medications. The main outcome we measured ws the change from admission to discharge in the number of five basic activities of daily living (bathing, getting dressed, using the toilet, moving from a bed to a chair, and eating) that the patient could perform independently. RESULTS. Twenty-four patients in each group died in the hospital. At the time of discharge, 65 (21 percent) of the 303 surviving patients in the intervention group were classified as much better in terms of their ability to perform basic activities of daily living, 39 (13 percent) as better, 151 (50 percent) as unchanged, 22 (7 percent) as worse, and 26 (9 percent) as much worse. In the usual care group, 40 (13 percent) of the 300 surviving patients were classified as much better, 33 (11 percent) as better, 163 (54 percent) as unchanged, 39 (13 percent) as worse, and 25 (8 percent) as much worse (P = 0.009). The difference between the groups remained significant (P = 0.04) in a multivariable model in which we controlled for potentially confounding base-line characteristics of the patients. Lengths of stay and hospital charges were similar in the two groups. Fewer patients assigned to the intervention group were discharged to long-term care institutions (43 patients [14 percent], as compared with 67 patients [22 percent] in the usual-care group; P = 0.01). Among the 493 patients discharged to private homes, similar proportions (about 10 percent) in the two groups were admitted to long-term care institutions during the three months after discharge. CONCLUSIONS. Specific changes in the provision of acute hospital care can improve the ability of a heterogeneous group of acutely ill older patients to perform basic activities of daily living at the time of discharge from the hospital and can reduce the frequency of discharge to institutions for long-term care.

Keywords: Activities of Daily Living; Critical Care; Geriatric Assessment; Hospital Units--organization & administration; Patient-Centered Care; Other Subjects (MeSH): Acute Disease; Architectural Accessibility; Critical Illness--classification; Hospital Bed Capacity, 500 and over; Hospital Mortality; Hospitals, Teaching; Patient Discharge; Treatment Outcome; Ohio; Limits: Aged; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.

Author: Launer LJ, Andersen K, Dewey ME, Letenneur L, Ott A, Amaducci LA, Brayne C, Copeland JR, Dartigues JF, Kragh-Sorensen P, Lobo A, Martinez-Lage JM, Stijnen T, Hofman A
Title: Rates and risk factors for dementia and Alzheimer's disease: results from EURODEM pooled analyses. EURODEM Incidence Research Group and Work Groups. European Studies of Dementia
Journal: Neurology
Year: 1999 Jan 1
Volume: 52
Number: 1
Pages: 78-84
Notes: Dementia
Abstract: OBJECTIVE: To investigate the risk of AD associated with a family history of dementia, female gender, low levels of education, smoking, and head trauma. BACKGROUND: These putative factors have been identified in cross-sectional studies. However, those studies are prone to bias due to systematic differences between patients and control subjects regarding survival and how risk factors are recalled. METHODS: The authors performed a pooled analysis of four European population-based prospective studies of individuals 65 years and older, with 528 incident dementia patients and 28,768 person-years of follow-up. Patients were detected by screening the total cohort with brief cognitive tests, followed by a diagnostic assessment of those who failed the screening tests. Dementia was diagnosed with the Diagnostic and Statistical Manual of Mental Disorders, 3rd ed. (revised), and AD was diagnosed according to National Institute of Neurological and Communicative Disorders and Stroke-Alzheimer's Disease and Related Disorders Association criteria. Incident rates and relative risk (95% CI) express the association of a risk factor for dementia. RESULTS: Incident rates for dementia and AD were similar across studies. The incidence of AD increased with age. At 90 years of age and older the incidence was 63.5 (95% CI, 49.7 to 81.0) per 1,000 person-years. Female gender, current smoking (more strongly in men), and low levels of education (more strongly in women) increased the risk of AD significantly. A history of head trauma with unconsciousness and family history of dementia did not increase risk significantly. CONCLUSION: Contrary to previous reports, head trauma was not a risk factor for AD, and smoking did not protect against AD. The association of family history with the risk of AD is weaker than previously estimated on the basis of cross-sectional studies. Female gender may modify the risk of AD, whether it be via biological or behavioral factors.
Keywords: Alzheimer Disease--epidemiology; Other Subjects (MeSH): Age Distribution; Follow-Up Studies; Incidence; Risk Factors; Europe--epidemiology; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't

Author: Lavsky-Shulan M, Wallace RB, Kohout FJ, Lemke JH, Morris MC, Smith IM
Title: Prevalence and functional correlates of low back pain in the elderly: the Iowa 65+ Rural Health Study
Journal: Journal of the American Geriatrics Society
Year: 1985 Jan
Volume: 33
Number: 1
Pages: 23-28
Notes: Pain Management
Abstract: As part of an interview survey of a defined population of 3,097 rural persons 65 years and older (the Iowa 65 + Rural Health Study), the prevalence and functional correlates of specifically defined low back pain were studied. Low back pain was reported by 23.6 per cent of the women and 18.4 per cent of the men in the year prior to the survey, with prevalence rates declining with age. Forty per cent of those with low back pain noted its presence at the time of the interview. Over half had used analgesics. Use of medical and chiropractic services for this symptom was nearly 75 per cent; 25 per cent had at least one hospitalization directly related to low back pain and over 5 per cent had low back surgery. Limitation of walking, sitting, bending over, and performing household chores was reported by 15 to 40 per cent, and 21 per cent attributed sleep disturbance to the low back pain. Nearly 75 per cent of subjects with low back

pain reported first onset of the problem prior to age 65, which has important implications for pathogenesis and prevention. The functional and clinical burdens of low back pain in this population of rural elderly were substantial and require further evaluation of risk factors and impact on health status.

Keywords: Back Pain--epidemiology; Rural Health; Other Subjects (MeSH): Activities of Daily Living; Age Factors; Back Pain--etiology; Rural Population; Sex Factors; Iowa; Limits: Adult; Aged; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Leipzig RM, Cumming RG, Tinetti ME
Title: Drugs and falls in older people: a systematic review and meta-analysis: II. Cardiac and analgesic drugs
Journal: Journal of the American Geriatrics Society
Year: 1999 Jan
Volume: 47
Number: 1
Pages: 40-50
Notes: Falls and Mobility Problems
Abstract: OBJECTIVES: To evaluate critically the evidence linking specific classes of cardiac and analgesic drugs to falls in older people. DESIGN: Fixed-effects meta-analysis. DATA SOURCES: English-language articles in MEDLINE (1966 - March 1996) indexed under accidents or accidental falls and aged or age factors; bibliographies of retrieved papers. STUDY SELECTION: Systematic evaluation of cardiac or analgesic drug use and any fall in people aged 60 years and older. DATA EXTRACTION: Study design, inclusion and exclusion criteria, setting, sample size, response rate, mean age, method of medication verification and fall assessment, fall definition, and the number of fallers and nonfallers taking specific classes of cardiac and analgesic drugs. RESULTS: Twenty nine studies met inclusion criteria. None were randomized controlled trials. For one or more falls, the pooled Odds Ratio (95% Confidence Interval) was 1.08 (1.02-1.16) for diuretic use, 1.06 (0.97-1.16) for thiazide diuretics, 0.90 (0.73-1.12) for loop diuretics, 0.93 (0.77-1.11) for beta-blockers, 1.16 (0.87-1.55) for centrally acting antihypertensives, 1.20 (0.92-1.58) for ACE inhibitors, 0.94 (0.77-1.14) for calcium channel blockers, 1.13 (0.95-1.36) for nitrates, 1.59 (1.02-2.48) for type Ia antiarrhythmics, and 1.22 (1.05-1.42) for digoxin use. For analgesic drugs, the pooled OR was 0.97 (0.78-1.20) for narcotic use, 1.09 (0.88-1.34) for nonnarcotic analgesic use, 1.16 (0.97-1.38) for NSAID use, and 1.12 (0.80-1.57) for aspirin use. There was no statistically significant heterogeneity of pooled odds ratios. There were no differences between the pooled odds ratios for studies with mean subject age <75 versus > or =75 years old or for studies in communities with <35% versus > or =35% fallers. In studies of the relationship between psychotropic, cardiac, or analgesic drugs and falls, subjects reporting the use of more than three or four medications of any type were at increased risk of recurrent falls. CONCLUSION: Digoxin, type IA antiarrhythmic, and diuretic use are associated weakly with falls in older adults. No association was found for the other classes of cardiac or analgesic drugs examined. The evidence to date, however, is based solely on observational data, with minimal adjustment for confounders, dosage, or duration of therapy. Older adults taking more than three or four medications were at increased risk of recurrent falls. As a result of the incidence of falls and their consequences in this population, programs designed to decrease medication use should be evaluated for their impact on fall rates.
Keywords: Accidental Falls--statistics & numerical data; Analgesics--adverse effects; Cardiovascular Agents--adverse effects; Aged--statistics & numerical data; Other Subjects (MeSH): Age Distribution; Age Factors; Confounding Factors (Epidemiology); Incidence; Odds Ratio; Recurrence; Research Design; Risk Factors; Limits: Human; Middle Age

Author: Levkoff SE, Evans DA, Liptzin B, Cleary PD, Lipsitz LA, Wetle TT, Reilly CH, Pilgrim DM, Schor J, Rowe J
Title: Delirium. The occurrence and persistence of symptoms among elderly hospitalized patients
Journal: Archives of Internal Medicine
Year: 1992 Feb
Volume: 152

Number: 2
Pages: 334-340
Notes: Dementia
Abstract: We evaluated the occurrence and persistence of delirium in 325 elderly patients admitted to a teaching hospital from either a defined community or a long-term care facility. Of the study participants, 34 (10.5%) had Diagnostic and Statistical Manual of Mental Disorders, Third Edition--defined delirium at initial evaluation; of the remaining patients, 91 (31.3%) developed new-onset delirium. An additional 110 patients also experienced individual symptoms of delirium without meeting full criteria. Preexisting cognitive impairment and advanced age were associated with increased risk of incident delirium in the community sample but not the institutional one. Delirium was not associated with an increased risk of mortality, but it was associated with a prolonged hospital stay and an increased risk of institutional placement among community-dwelling elderly. Only five patients (4%) experienced resolution of all new symptoms of delirium before hospital discharge, and only 20.8% and 17.7%, respectively, had resolution of all new symptoms by 3 and 6 months after hospital discharge. These data suggest that delirium is a common disorder that may be substantially less transient than currently believed and that incomplete manifestations of the syndrome may be frequent.
Keywords: Delirium; Hospitalization; Other Subjects (MeSH): Cognition; Delirium--diagnosis; Delirium--epidemiology; Length of Stay; Prospective Studies; Risk Factors; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't

Author: Lippy WH, Burkey JM, Fucci MJ, Schuring AG, Rizer FM
Title: Stapedectomy in the elderly
Journal: American Journal of Otology
Year: 1996 Nov
Volume: 17
Number: 6
Pages: 831-834
Notes: Hearing Loss
Abstract: Clinical records were reviewed to examine the effectiveness of stapedectomy in patients 70 years and older. A total of 154 patients was studied, including 11 with profound hearing loss with long-standing otosclerosis. Ages at the time of surgery ranged from 70 to 92 years (mean, 76.3 years). The mean pure-tone average (500, 1,000, 2,000, and 4,000 Hz) improved 30.6 dB after surgery for the 143 patients in the main otosclerotic group and 26.8 dB for the patients in the profound-hearing-loss group. The rate of successful stapedectomies for the 70(+)-year-old patients (90.9%) and the younger comparison group (90.0%) were similar. These findings extend the documented range of stapedectomy as a safe and effective procedure through the eighth decade of life.
Keywords: Hearing Loss, Conductive--complications; Otosclerosis--surgery; Stapes Surgery; Other Subjects (MeSH): Dizziness--etiology; Follow-Up Studies; Hearing Loss, Conductive--diagnosis; Otosclerosis--complications; Postoperative Complications; Retrospective Studies; Severity of Illness Index; Speech Reception Threshold Test; Treatment Outcome; Limits: Aged; Comparative Study; Female; Human; Male

Author: Lipsitz LA, Jonsson PV, Kelley MM, Koestner JS
Title: Causes and correlates of recurrent falls in ambulatory frail elderly.
Journal: Journal of Gerontology
Year: 1991 Jul
Volume: 46
Number: 4
Pages: M114-M122
Notes: Falls and Mobility Problems
Abstract: To determine causes and clinical correlates of recurrent falls in ambulatory frail elderly people, we evaluated 70 recurrent fallers and 56 nonfallers (mean age = 87 years) from two long-term care facilities. Evaluations included a detailed history, physical examination, performance-oriented mobility assessment, and laboratory studies. Primary causes including stroke,

parkinsonism, blindness, drug-related hypotension, and arthritis were established for the most recent fall in 51 (73%) fallers. Eighteen fallers (26%) had multiple conditions that could not be prioritized for their contribution to the fall. Fallers were more often women, were functionally more impaired, and were taking more medications than nonfallers. Specific diseases did not distinguish fallers from nonfallers. Fallers of both sexes took more steps to turn 360 degrees, could not stand up from a chair without pushing off, had a higher prevalence of antidepressant use, and had impaired position sensation. These easily obtained clinical variables characterized nearly three-quarters of ambulatory elderly nursing home residents with a history of recurrent falls.
Keywords: Accidental Falls; Frail Elderly; Other Subjects (MeSH): Homes for the Aged; Nursing Homes; Recurrence; Risk Factors; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Lipsitz LA, Wei JY, Rowe JW
Title: Syncope in an elderly, institutionalised population: prevalence, incidence, and associated risk
Journal: Quarterly Journal of Medicine
Year: 1985 Apr
Volume: 55
Number: 216
Pages: 45-54
Notes: Hypertension
Abstract: Although syncope is common in the elderly, little is known of its epidemiology and prognosis. A retrospective analysis of syncope in 711 very old (mean age 87 years) institutionalised patients revealed a 10 year prevalence of 23 per cent and one year incidence of 7 per cent. A two-year prospective follow-up of this population revealed a yearly incidence of 6 per cent and recurrence rate of 30 per cent. Of 67 patients who developed syncope during follow-up, a cause was established in 46; 14 (21 per cent) had cardiac and 32 (48 per cent) had non-cardiac aetiologies. Twenty-one cases (31 per cent) remained unexplained. Patients who developed syncope were initially more functionally disabled (p = 0.003) and subsequently changed function more frequently (p = 0.03) than those without the development of syncope, but two year rates of hospitalisation and death were not different between the two groups. Life-table survival analysis showed no difference in the mortality of subgroups with cardiac, non-cardiac, and unknown aetiologies of syncope. Syncope is common in multiply impaired elders and is likely a manifestation of co-morbid disease rather than an independent contributor to mortality.
Keywords: Syncope--epidemiology; Other Subjects (MeSH): Heart Diseases--complications; Heart Diseases--mortality; Institutionalization; Mortality; Prospective Studies; Retrospective Studies; Risk; Syncope--etiology; Syncope--mortality; Boston; Limits: Aged; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.

Author: Lubin MF
Title: Is age a risk factor for surgery?
Journal: Medical Clinics of North America
Year: 1993 Mar
Volume: 77
Number: 2
Pages: 327-333
Notes: Surgery
Abstract: The question of age as a risk factor for surgery is complicated. There are many factors that have an impact on mortality rates in surgical care of the elderly. The most important of these are the physiologic changes with aging, underlying disease states, the type of procedures performed, and whether the procedure is performed as an emergency. Although there are many risks in performing surgery in elderly patients, there are many patients who do well and benefit from undergoing surgical procedures. Age alone should never be used as the criterion to deny surgery indicated in an elderly patient.
Keywords: Surgical Procedures, Operative; Aged; Other Subjects (MeSH): Age Factors; Aging--physiology; Emergencies; Risk Factors; Surgical Procedures, Operative--mortality; Limits:

Aged, 80 and over; Human

Author: Luptak MK, Boult C
Title: A method for increasing elders' use of advance directives
Journal: Gerontologist
Year: 1994 Jun
Volume: 34
Number: 3
Pages: 409-412
Notes: End of Life
Abstract: Most published studies report that few elderly people have recorded advance directives (AD). We studied the effectiveness of an interdisciplinary intervention designed to help ambulatory frail elders to record AD. In collaboration with physicians and a trained lay volunteer, a social worker provided information and counseling to the elderly subjects, to their families, and to their proxies in a series of visits to a geriatric evaluation and management (GEM) clinic. Seventy-one percent of the subjects recorded AD. Of these, 96% named a proxy, and 83% recorded specific treatment preferences.
Keywords: Advance Directives; Frail Elderly; Patient Education; Social Work; Other Subjects (MeSH): Ambulatory Care; Counseling; Evaluation Studies; Family; Patient Care Team; United States; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't

Author: Magni G, Schifano F, De Leo D
Title: Pain as a symptom in elderly depressed patients. Relationship to diagnostic subgroups
Journal: European Archives of Psychiatry and Neurological Sciences
Year: 1985
Volume: 235
Number: 3
Pages: 143-145
Notes: Pain Management
Abstract: The presence of pain as a symptom has been studied in a series of 51 depressed elderly inpatients and in a control group of 71 subjects. The frequency of patients with moderate to severe pain was significantly higher in the experimental group (72%) than in the controls (33.8%). Of the various categories diagnosed according to the DSM III degree criteria, the highest scores for pain were gained by the subjects suffering from dysthymic disorder and atypical depression, while those obtained by the patients with major depression and adjustment disorder with depressive mood were lower. The difference does not seem to depend on the quantity of anxiety present.
Keywords: Depressive Disorder--psychology; Pain--psychology; Somatoform Disorders--psychology; Other Subjects (MeSH): Anxiety Disorders--psychology; Chronic Disease; Depressive Disorder--diagnosis; Limits: Aged; Female; Human; Male

Author: Mangione CM, Phillips RS, Lawrence MG, Seddon JM, Orav EJ, Goldman L
Title: Improved visual function and attenuation of declines in health-related quality of life after cataract extraction
Journal: Archives of Ophthalmology
Year: 1994 Nov
Volume: 112
Number: 11
Pages: 1419-1425
Notes: Vision Care
Abstract: OBJECTIVE: To measure the effect of cataract extraction and lens implantation on elderly persons' health-related quality of life and on their ability to perform visual activities. DESIGN: Evaluations of health status were conducted preoperatively and at 3 and 12 months after surgery on patients scheduled for cataract extraction. SETTING: Patients were enrolled from the General Eye Service of the Massachusetts Eye and Ear Infirmary and 33 Boston practices.

PATIENTS: The cohort consisted of 464 patients aged 65 years or older who were identified from the surgical schedule of the Massachusetts Eye and Ear Infirmary. At 3 to 12 months after surgery, 458 (99%) of the participants were successfully contacted. Health-related quality of life data were available for 419 (90%) to assess changes after surgery. MAIN OUTCOME MEASURES: Ophthalmologic examinations were performed preoperatively and during the follow-up period. The Activities of Daily Vision Scale (ADVS) and the Medical Outcomes Study 36-item short from (SF-36) were administered before surgery and at 3 and 12 months postoperatively to assess changes in health status. RESULTS: At 12 months after surgery, 95% of patients had improved Snellen visual acuity, 80% had improved ADVS scores, but only 36% had improved SF-36 physical functioning. Average scores on seven of eight SF-36 subscales worsened at 12 months. Patients with improved ADVS scores had significantly smaller declines across all SF-36 dimensions except for role limitations due to emotional problems. CONCLUSION: Improved visual function after cataract surgery was associated with better health-related quality of life, suggesting that age-related declines in health may be attenuated by improvements in visual function.

Keywords: Cataract Extraction; Quality of Life; Visual Acuity--physiology; Other Subjects (MeSH): Activities of Daily Living; Follow-Up Studies; Health Status; Lenses, Intraocular; Longitudinal Studies; Prospective Studies; Limits: Aged; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Manson A, Shea S
Title: Malnutrition in elderly ambulatory medical patients
Journal: American Journal of Public Health
Year: 1991 Sep
Volume: 81
Number: 9
Pages: 1195-1197
Notes: Malnutrition
Abstract: Elderly ambulatory persons may be especially susceptible to malnutrition, particularly those who are poor and socially isolated or have comorbid chronic medical diseases. We found that 98 of 2,986 persons aged 60 years or older attending a hospital-based medical practice between 1979 and 1989 weighed less than 45.4 kg (100 lbs). All but 1 of these subjects met criteria for malnutrition as judged against age-specific norms for weight. Thus the prevalence of malnutrition in this sample was 3.25% (95% CI 2.61, 3.89%). Interviews and physical examinations of a subsample (n = 16) revealed that all 16 subjects either met anthropometric-based criteria for malnutrition or were being treated for malnutrition. Of the 98 subjects who weighed less than 45.4 kg, 62 (63.3%; 95% CI 53.8, 72.8%) had comorbid conditions that could have contributed to malnutrition. Physicians did not record a diagnosis of malnutrition or weight loss in 47.9% of subjects (95% CI 38.0, 57.8%) and did not prescribe a nutrition supplement for 76.5% of subjects (95% CI 68.1, 84.9%). Subjects treated with nutrition supplement were more likely to have cancer. These findings suggest that malnutrition, both with and without concomitant major comorbid disease, is relatively frequent among elderly ambulatory patients and that a specific nutritional diagnosis is not made in many cases. We suggest that weight under 45.4 kg in an elderly person is a useful criterion for identifying elderly patients at nutritional risk.
Keywords: Nutrition Disorders--epidemiology; Nutritional Status; Other Subjects (MeSH): Nutrition Disorders--etiology; Thinness; Limits: Aged; Human; Middle Age

Author: McWhinney IR, Bass MJ, Donner A
Title: Evaluation of a palliative care service: problems and pitfalls
Journal: British Medical Journal (Clinical Research Ed.)
Year: 1994 Nov 19
Volume: 309
Number: 6965
Pages: 1340-1342
Notes: End of Life
Abstract: OBJECTIVE--To evaluate a palliative care home support team based on an inpatient unit.

DESIGN--Randomised controlled trial with waiting list. Patients in the study group received the service immediately, those in the control group received it after one month. Main comparison point was at one month. SETTING--A city of 300,000 people with a publicly funded home care service and about 200 general practitioners, most of whom provide home care. MAIN OUTCOME MEASURES--Pain and nausea levels were measured at entry to trial and at one month, as were quality of life for patients and care givers' health. RESULTS--Because of early deaths, problems with recruitment, and a low compliance rate for completion of questionnaires, the required sample size was not attained. CONCLUSION--In designing evaluations of palliative care services, investigators should be prepared to deal with the following issues: attrition due to early death, opposition to randomisation by patients and referral sources, ethical problems raised by randomisation of dying patients, the appropriate timing of comparison points, and difficulties of collecting data from sick or exhausted patients and care givers. Investigators may choose to evaluate a service from various perspectives using different methods: controlled trials, qualitative studies, surveys, and audits. Randomised trials may prove to be impracticable for evaluation of palliative care.
Keywords: Home Care Services; Palliative Care; Other Subjects (MeSH): Health Services Research; Hospice Care; Nausea--etiology; Nausea--therapy; Pain--etiology; Pain--therapy; Patient Compliance; Quality of Life; Canada; Limits: Human; Support, Non-U.S. Gov't

Author: Meehan M
Title: Multisite pressure ulcer prevalence survey
Journal: Decubitus
Year: 1990 Nov
Volume: 3
Number: 4
Pages: 14-17
Notes: Pressure Ulcers
Abstract: The prevalence of pressure ulcers was 9.2% in the 148 hospitals included in the survey. Fifty-eight percent of ulcers were found in patients between the ages of 70 and 89 years. The sacrum was the most common site of ulcers (38%), but the trochanter had the most Stage IV ulcers. Patients had an average of 1.7 ulcers, and Stage IV ulcers were more common in African-Americans and in hospitals over 500 beds. The most commonly used support system was a purchased overlay, but 20 percent of the patients with ulcers were lying on traditional hospital mattresses.
Keywords: Decubitus Ulcer--epidemiology; Hospitals; Other Subjects (MeSH): Bed Occupancy; Decubitus Ulcer--pathology; Decubitus Ulcer--prevention & control; Ethnic Groups; Prevalence; Severity of Illness Index; Limits: Human

Author: Meier DE, Gold G, Mertz K, Taylor B, Cammer-Paris BE, Seckler A, Mulvihill M
Title: Enhancement of proxy appointment for older persons: physician counselling in the ambulatory setting
Journal: Journal of the American Geriatrics Society
Year: 1996 Jan
Volume: 44
Number: 1
Pages: 37-43
Notes: End of Life
Abstract: OBJECTIVE: To determine the effectiveness of physician-initiated counselling on the rate of health care proxy appointment. DESIGN: Observational study of an intervention in a convenience sample. SETTING: A geriatric outpatient clinic in a tertiary care teaching hospital, New York, New York. PARTICIPANTS: A total of 687 patients enrolled in the geriatric clinic during the study period March 1991 through June 1993. INTERVENTION: Physician counselling about the New York State Health Care Proxy Law, distribution of educational materials and healthcare proxy forms, and reminders in 331 of 466 eligible patients. MEASUREMENTS: Rate of healthcare proxy appointment in eligible and counselled groups; predictors of appointment and non-appointment; time elapsed from counselling to appointment; reasons for non-appointment; characteristics of the proxy appointment process. RESULTS: A

healthcare proxy was appointed for 31.5% of patients eligible for counselling and for 44% of patients who actually received the intervention, compared with a 2.3% proxy appointment rate at baseline. Eighty-one percent of the patients completing the proxy appointment process did so at or before their third clinic return visit after the counselling intervention. Of the counselled patients who did not appoint a proxy, 25% explicitly declined, and 75% had not come to a decision by the end of the study period. Proxy completion was associated with ethnicity, education, and more frequent clinic visits. Of those who appointed a proxy, 97% had good or fair comprehension of the procedure, 92% discussed the appointment with their designees, 63% appointed a daughter or son, and 80% discussed their wishes for care at the end of life with their proxy. CONCLUSIONS: Physician counselling of older outpatients is an effective means of increasing healthcare proxy appointments.
Keywords: Advance Directives; Ambulatory Care--methods; Counseling--methods; Patient Education--methods; Other Subjects (MeSH): Advance Directives--legislation & jurisprudence; Chi-Square Distribution; Educational Status; Ethnic Groups; Geriatrics--methods; Knowledge, Attitudes, Practice; Logistic Models; Patient Compliance; Physician-Patient Relations; Questionnaires; Terminal Care--legislation & jurisprudence; New York City; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't

Author: Mendes de Leon CF, Fillenbaum GG, Williams CS, Brock DB, Beckett LA, Berkman LF
Title: Functional disability among elderly blacks and whites in two diverse areas: The New Haven and North Carolina EPESE. Established Populations for the Epidemiologic Studies of the Elderly
Journal: American Journal of Public Health
Year: 1995 Jul
Volume: 85
Number: 7
Pages: 994-998
Notes: Function
Abstract: This study examines the prevalence of functional disability (limitation in at least one basic activity of daily living) among elderly Black and White community residents in the New Haven (n = 2812) and North Carolina (n = 4162) sites of the Established Populations for Epidemiologic Studies of the Elderly (EPESE). In New Haven, elderly Blacks, particularly women below age 75, had a higher prevalence of disability compared with Whites, which was partially attributable to a higher prevalence of chronic conditions. In North Carolina, Blacks had only a slightly higher risk of being disabled than Whites, and this was fully accounted for by differences in socioeconomic status. Black-White differences in the prevalence of functional disability reveal geographic variation.
Keywords: Blacks--statistics & numerical data; Disabled Persons--statistics & numerical data; Rural Population--statistics & numerical data; Urban Population--statistics & numerical data; Whites--statistics & numerical data; Other Subjects (MeSH): Activities of Daily Living; Age Distribution; Health Status Indicators; Prevalence; Sex Distribution; Socioeconomic Factors; Connecticut; North Carolina; Limits: Aged; Comparative Study; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Miller NS, Belkin BM, Gold MS
Title: Alcohol and drug dependence among the elderly: epidemiology, diagnosis, and treatment
Journal: Comprehensive Psychiatry
Year: 1991 Mar-Apr
Volume: 32
Number: 2
Pages: 153-165
Notes: Substance Abuse
Abstract: Alcohol and drug dependence among the elderly is common and yet frequently underdiagnosed. The practice of self-administration of prescribed medications, particularly sedative/hypnotics, benzodiazepines, and nonprescription, over-the-counter (OTC) medications is prevalent, with untoward consequences in the geriatric population. Dementia, depression,

and anxiety syndromes are some of the consequences of alcohol and drug dependence, and may mimic other causes of these disorders. The clinician's index of suspicion must be high enough to make the proper diagnosis of these alcohol- and drug-induced syndromes. Unnecessary evaluations, improper diagnosis, and ineffective and costly treatments may be avoided if alcohol and drug dependence is identified and treated. Effective treatment for alcohol and drug dependence does exist for the elderly and may be instituted in a cost-effective manner.

Keywords: Alcoholism--epidemiology; Substance-Related Disorders--epidemiology; Other Subjects (MeSH): Alcoholism--etiology; Alcoholism--therapy; Catchment Area (Health); Diagnosis, Differential; Drug Utilization; Drugs, Non-Prescription--adverse effects; Prevalence; Prognosis; Self Administration; Street Drugs--adverse effects; Substance-Related Disorders--etiology; Substance-Related Disorders--therapy; United States--epidemiology; Limits: Adolescence; Adult; Aged; Animal; Female; Human; Male; Middle Age

Author: Mohide EA, Pringle DM, Robertson D, Chambers LW
Title: Prevalence of urinary incontinence in patients receiving home care services
Journal: Canadian Medical Association Journal
Year: 1988 Nov 15
Volume: 139
Number: 10
Pages: 953-956
Notes: Urinary Conditions
Abstract: We conducted a 1-day survey to determine the prevalence of urinary incontinence among patients in four home care programs in southern Ontario and the characteristics of incontinent patients. Of the 2801 patients for whom the continence status was known, 22% were assessed as incontinent. The mean age of the incontinent patients was 74 (extremes 18 and 101) years, and 65% were women. A total of 89% had at least one functional disability in cognition, mobility, transferring in and out of bed or chair, or undoing garments. The incontinence was moderate to severe in 41% of the patients, and 95% of the family caregivers living with these patients viewed the incontinence as a problem. Palliative rather than remedial treatment was used most frequently; only 5% of the patients had undergone a urodynamic assessment in the previous year. Future research should emphasize the assessment of remedial interventions.
Keywords: Home Care Services; Urinary Incontinence--epidemiology; Other Subjects (MeSH): Age Factors; Cross-Sectional Studies; Urinary Incontinence--therapy; Ontario; Limits: Adolescence; Adult; Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Monane M
Title: Insomnia in the elderly
Journal: Journal of Clinical Psychiatry
Year: 1992 Jun
Volume: 53
Number: Suppl
Pages: 23-28
Notes: Sleep Disorders
Abstract: Insomnia is common in the elderly population. Difficulty in initiating and maintaining sleep affects nearly half of all patients over the age of 65, representing an increased prevalence in older versus younger patients. Nocturnal sleep time is decreased, frequent awakenings occur, and daytime napping is common. Age-related changes in sleep physiology correlate with the subjective complaints of disturbed sleep. Multiple etiologies for insomnia in the elderly have been described. Management strategies must include attention to both nonpharmacologic and pharmacologic aspects of care, especially with respect to the altered pharmacokinetics and pharmacodynamics associated with advanced age. Reassessing therapy is essential to promote the end goal of improvement of the elderly patient's quality of life.
Keywords: Insomnia--therapy; Other Subjects (MeSH): Age Factors; Aging--physiology; Benzodiazepines--administration & dosage; Benzodiazepines--therapeutic use; Flurazepam--administration & dosage; Flurazepam--therapeutic use; Insomnia--diagnosis; Insomnia--drug therapy; Patient

Education; Quality of Life; Sleep--physiology; Limits: Adult; Aged; Human; Middle Age; Support, Non-U.S. Gov't

Author: Monane M, Bohn RL, Gurwitz JH, Glynn RJ, Levin R, Avorn J
Title: Compliance with antihypertensive therapy among elderly Medicaid enrollees: the roles of age, gender, and race
Journal: American Journal of Public Health
Year: 1996 Dec
Volume: 86
Number: 12
Pages: 1805-1808
Notes: Hypertension
Abstract: OBJECTIVES: This study measured compliance and related demographic factors in a retrospective cohort of 4068 elderly outpatients newly starting antihypertensive therapy from 1982 through 1988. METHODS: Logistic regression modeling of data from the New Jersey Medicaid program was used. RESULTS: These patients filled antihypertensive prescriptions covering an average of only 179 days in the 365-day follow-up period (49%) Good compliance (> or = 80%) was associated with advanced age (odds ratio [OR] = 2.12, for patients 85 or older) and White race (OR = 0.55 for Blacks). There was no relationship between compliance and gender. CONCLUSIONS: Despite the efficacy of antihypertensive therapy in preventing cardiovascular morbidity, such high rates of noncompliance may contribute to suboptimal patient outcomes.
Keywords: Antihypertensive Agents--administration & dosage; Patient Compliance; Other Subjects (MeSH): Age Factors; Ethnic Groups; Logistic Models; Medicaid; Odds Ratio; Self Administration; Sex Factors; United States; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Montamat SC, Cusack B
Title: Overcoming problems with polypharmacy and drug misuse in the elderly
Journal: Clinics in Geriatric Medicine
Year: 1992 Feb
Volume: 8
Number: 1
Pages: 143-158
Notes: Appropriate Medication Use
Abstract: Polypharmacy, the inappropriate use of multiple drug regimens, has a significant impact on the health of elderly individuals. Drug use increases with age, but suitability of therapy is sometimes difficult to define. In ambulatory and hospital care, there is some documentation of poor prescribing practices by physicians and drug misuse by patients. Sound data suggest that polypharmacy and drug misuse are highly prevalent in long-term care facilities. Psychotherapeutic agents are the most commonly misused drugs by physicians in this setting. Polypharmacy is associated with factors such as the number and severity of illnesses, hospitalization, number of physicians seen, number of pharmacies used, and possibly increased patient age. Methods to prevent polypharmacy and drug misuse have not been well studied. There is a need for intensive research to define effective methods to strengthen prescribing practice of physicians for elderly patients, to promote cooperation among health care personnel in ensuring optimal drug use by patients, and to enhance the role of patients as responsible partners in drug therapy. The authors are confident, however, that drug misuse and polypharmacy can be reduced in older persons by the use of current knowledge of risk factors associated with polypharmacy and by improved communication between the physician and patient.
Keywords: Drug Therapy; Substance-Related Disorders--etiology; Aged; Other Subjects (MeSH): Ambulatory Care--methods; Chronic Disease; Drug Therapy--adverse effects; Drug Utilization; Hospitalization; Long-Term Care--methods; Physician's Role; Prescriptions, Drug; Limits: Human

Author: Moore KA, Danks JH, Ditto PH, Druley JA, Townsend A, Smucker WD
Title: Elderly outpatients' understanding of a physician-initiated advance directive discussion
Journal: Archives of Family Medicine
Year: 1994 Dec
Volume: 3
Number: 12
Pages: 1057-1063
Notes: End of Life
Abstract: OBJECTIVE: To examine elderly outpatients' understanding of advance directives (ADs), cardiopulmonary resuscitation (CPR), and artificial nutrition and hydration (ANH) with and without the benefit of a physician-initiated discussion. DESIGN: Randomized controlled trial. SETTING: University-affiliated, community-based, urban family practice residency training program. PATIENTS: One hundred patients aged 65 and older, consecutively sampled and randomly assigned to one of two discussion groups. INTERVENTIONS: Physicians' discussions based on a prepared script consisting of AD issues or health promotion issues. MAIN OUTCOME MEASURES: Test of comprehension of AD, CPR, and ANH information, using open-ended and yes-or-no questions. RESULTS: Patients in the AD and health promotion discussion groups showed good basic understanding. Younger and better-educated patients had a better working knowledge of AD-related information. Understanding of ADs was higher when the physician spent more time talking about AD-related issues after the discussion was completed. CONCLUSIONS: Many elderly outpatients have a good basic understanding of ADs, CPR, and ANH, even without explicit explanations from physicians. However, younger, better-educated patients and those who had longer unstructured discussions had greater AD-related knowledge. These factors need to be considered when framing discussions with patients about ADs and life-sustaining treatments.
Keywords: Advance Directives; Cognition; Outpatients--psychology; Patient Education; Physician-Patient Relations; Other Subjects (MeSH): Analysis of Variance; Cardiopulmonary Resuscitation; Communication; Fluid Therapy; Parenteral Nutrition; Patient Education--methods; Questionnaires; Regression Analysis; Limits: Aged; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Morris A, Browne G, Saltmarche A
Title: Urinary incontinence: correlates among cognitively impaired elderly veterans
Journal: Journal of Gerontological Nursing
Year: 1992 Oct
Volume: 18
Number: 10
Pages: 33-40
Notes: Urinary Conditions
Abstract: 1. Although a range of factors can contribute to urinary incontinence in long-term care residents, it is more closely associated with a decline in both cognitive and functional status. 2. Although all subjects had to be cognitively impaired to participate in the study, the incontinent group had a significantly lower mean score on the mental status examination than did the continent group. 3. Incontinent subjects were more dependent in activities of daily living and took significantly longer to carry out functional tasks specifically related to toileting. 4. Urinary incontinence was strongly associated with a history of urinary tract infections, positive urine cultures, epididymitis, hematuria, and fecal incontinence. Medical diagnosis, medications, and affective status were not associated with the problem.
Keywords: Cognition Disorders--complications; Urinary Incontinence--epidemiology; Other Subjects (MeSH): Case-Control Studies; Hospitals, University; Long-Term Care; Nursing Assessment; Risk Factors; Urinary Incontinence--complications; Urinary Incontinence--nursing; Limits: Human; Male

Author: Moss MS, Lawton MP, Glicksman A
Title: The role of pain in the last year of life of older persons
Journal: Journal of Gerontology

Year: 1991 Mar
Volume: 46
Number: 2
Pages: P51-P57
Notes: Pain Management
Abstract: A random sample of 200 decreased older community residents was studied with a focus on the role of pain in the last year of life. Interviews with a surviving close person elicited retrospective reports. Pain increased over the final year; one month before death 66% felt pain frequently or all of the time, substantially higher than a matched comparison group of living persons (24%). For both groups across the year, pain was associated with most measures of behavioral competence, perceived quality of life, and psychological well-being. Hierarchical multiple regressions indicated that background and health variables explained 28% to 32% of the variance of pain over the year. Controlling for background variables and health, pain contributed significantly to lowered happiness and to depression, but had no independent impact on hope and interest in the world. After controlling for physical health, the older old were judged to have less pain than the younger old.
Keywords: Pain; Quality of Life; Other Subjects (MeSH): Activities of Daily Living; Attitude; Chronic Disease; Health Status; Interpersonal Relations; Pain--physiopathology; Pain--psychology; Pain Measurement; Personal Satisfaction; Personality; Prevalence; Retrospective Studies; Philadelphia; Limits: Aged; Comparative Study; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Mulrow CD, Aguilar C, Endicott JE, Tuley MR, Velez R, Charlip WS, Rhodes MC, Hill JA, DeNino LA
Title: Quality-of-life changes and hearing impairment. A randomized trial
Journal: Annals of Internal Medicine
Year: 1990 Aug 1
Volume: 113
Number: 3
Pages: 188-194
Notes: Hearing Loss
Abstract: OBJECTIVE: To assess whether hearing aids improve the quality of life of elderly persons with hearing loss. SETTING: Primary care clinics at a Bureau of Veterans Affairs hospital. PATIENTS: One hundred and ninety-four elderly veterans who were identified as being hearing impaired from a screening survey involving 771 consecutive clinic patients. Of the original 194, 188 (97%) completed the trial. INTERVENTION: Subjects were randomly assigned to either receive a hearing aid (n = 95) or join a waiting list (n = 99). MAIN ENDPOINTS: A comprehensive battery of disease-specific and generic quality-of-life measures were administered at baseline, 6 weeks, and 4 months. MEASUREMENTS AND MAIN RESULTS: Persons assigned to the two groups were similar in age, ethnicity, education, marital status, occupation, and comorbid diseases. At baseline, 82% of subjects reported adverse effects on quality of life due to hearing impairment, and 24% were depressed. At follow-up, a significant change in score improvements for social and emotional function (34.0; 95% CI, 27.3 to 40.8; P less than 0.0001), communication function (24.2; CI, 17.2 to 31.2; P less than 0.0001), cognitive function (0.28; CI, 0.08 to 0.48; P = 0.008), and depression (0.80; CI, 0.09 to 1.51; P = 0.03) was seen in subjects who received hearing aids compared with those assigned to the waiting list. Six drop-outs (three per group), no crossovers, and no significant changes in cointerventions were seen. Average, self-reported, daily aid use in the hearing aid group was 8 hours. CONCLUSION: Hearing loss is associated with important adverse effects on the quality of life of elderly persons, effects which are reversible with hearing aids.
Keywords: Hearing Aids; Hearing Loss, Conductive--rehabilitation; Hearing Loss, Partial--rehabilitation; Hearing Loss, Sensorineural--rehabilitation; Quality of Life; Other Subjects (MeSH): Analysis of Variance; Communication; Comorbidity; Hearing Loss, Conductive--psychology; Hearing Loss, Sensorineural--psychology; Patient Compliance; Patient Dropouts; Randomized Controlled Trials; Limits: Aged; Human; Male; Support, Non-U.S. Gov't

Author: Mulrow CD, Aguilar C, Endicott JE, Velez R, Tuley MR, Charlip WS, Hill JA

Title: Association between hearing impairment and the quality of life of elderly individuals
Journal: Journal of the American Geriatrics Society
Year: 1990 Jan
Volume: 38
Number: 1
Pages: 45-50
Notes: Hearing Loss
Abstract: Hearing impairment is one of the most common chronic health problems of elderly Americans. Although adverse effects on quality of life are thought to be considerable, they have not been rigorously evaluated. This study was designed to identify the types and extent of dysfunction experienced by elderly individuals with hearing loss, and to define the most appropriate measures for assessing this dysfunction. Elderly male veterans attending a primary care clinic were screened for hearing loss and had their quality of life assessed with a comprehensive battery of disease-specific and generic measures. Of 472 people who had their hearing tested, 106 had hearing loss. Hearing loss was associated with significant emotional (P = .0001), social (P = .0001), and communication (P = .02) dysfunction. Most individuals (66%) perceived these dysfunctions as severe handicaps even though audiologic loss revealed only mild to moderate impairment (pure tone average loss, 27-55 dB). Adverse effects were best detected with disease-specific rather than generic functional status measures. We conclude that hearing impairment is associated with important adverse effects on the quality of life of elderly individuals, and that these effects are perceived as severe handicaps even by individuals with only mild to moderate degrees of hearing loss.
Keywords: Hearing Disorders--psychology; Quality of Life; Other Subjects (MeSH): Activities of Daily Living--psychology; Affective Symptoms--complications; Affective Symptoms--psychology; Communication Disorders--complications; Communication Disorders--psychology; Cross-Sectional Studies; Hearing Disorders--complications; Neuropsychological Tests; Random Allocation; Social Isolation--psychology; Limits: Aged; Aged, 80 and over; Human; Male; Support, Non-U.S. Gov't

Author: Mulrow CD, Tuley MR, Aguilar C
Title: Sustained benefits of hearing aids
Journal: Journal of Speech and Hearing Research
Year: 1992 Dec
Volume: 35
Number: 6
Pages: 1402-1405
Notes: Hearing Loss
Abstract: This study was designed to evaluate long-term benefits of hearing aids in elderly individuals with hearing loss. A primary care cohort of 192 elderly, hearing-impaired veterans (mean age 72 +/- 6, 97% White, 94% retired) were assessed at baseline and at 4, 8, and 12 months after hearing aid fitting. Drop-out rates at 4, 8, and 12 months were 5%, 13%, and 16%, respectively. Outcome assessments included several quality-of-life scales: Hearing Handicap Inventory in the Elderly (HHIE), Quantified Denver Scale of Communication Function (QDS), Geriatric Depression Scale (GDS), and the Short Portable Mental Status Questionnaire (SPMSQ). All quality-of-life areas improved significantly from baseline to 4-month post-hearing aid fittings ($p < 0.05$). Social and emotional (HHIE), communication (QDS), and depression (GDS) benefits were sustained at 8 and 12 months, whereas cognitive changes (SPMSQ) reverted to baseline at 12 months. We conclude that hearing aids provide sustained benefits for at least a year in these elderly individuals with hearing impairment.
Keywords: Hearing Aids; Hearing Loss, Bilateral--rehabilitation; Other Subjects (MeSH): Audiometry, Pure-Tone; Auditory Threshold; Communication; Hearing Loss, Bilateral--diagnosis; Hearing Loss, Bilateral--physiopathology; Patient Compliance; Quality of Life; Speech Perception; Limits: Aged; Female; Human; Male; Support, Non-U.S. Gov't

Author: Narain P, Rubenstein LZ, Wieland GD, Rosbrook B, Strome LS, Pietruszka F, Morley JE
Title: Predictors of immediate and 6-month outcomes in hospitalized elderly patients. The

importance of functional status
Journal: Journal of the American Geriatrics Society
Year: 1988 Sep
Volume: 36
Number: 9
Pages: 775-783
Notes: Hospitalization
Abstract: This article presents results of a prospective multivariate study of hospitalized elderly patients at an acute-care Veterans Administration (VA) hospital to identify factors on hospital admission predictive of several short- and long-term outcomes: in-hospital and 6-month mortality, immediate and delayed nursing home admission, length of hospital stay, and 6-month rehospitalization. All patients aged 70 years and over admitted to acute-care beds on the medical service wards during a 1-year period were included in the study (N = 396). Factors most predictive of 6-month mortality (using logistic regression) were decreased functional status, admitting diagnosis, and decreased mental status. Factors most predictive of nursing home admission were decreased functional status, living location, and decreased mental status. Functional status was a stronger predictor of length of stay, mortality, and nursing home placement than was principal admitting diagnosis--of relevance to the current emphasis on diagnosis-related groups (DRGs). These data may be helpful in improving discharge planning, in resource allocation, and in targeting patients for different specialized geriatric programs.
Keywords: Hospitalization; Outcome and Process Assessment (Health Care); Other Subjects (MeSH): Activities of Daily Living; Disease; Follow-Up Studies; Forecasting; Length of Stay; Mortality; Nursing Homes; Patient Discharge; Patient Readmission; Prospective Studies; Limits: Aged; Female; Human; Male; Support, U.S. Gov't, Non-P.H.S.

Author: Nevitt MC, Johnell O, Black DM, Ensrud K, Genant HK, Cummings SR
Title: Bone mineral density predicts non-spine fractures in very elderly women. Study of Osteoporotic Fractures Research Group
Journal: Osteoporosis International
Year: 1994 Nov
Volume: 4
Number: 6
Pages: 325-331
Notes: Osteoporosis
Abstract: To determine the ability of bone density to predict fractures in very elderly women, we examined the association of bone density with non-spine, hip, wrist and humerus fractures in 8699 Caucasian women aged 65-79 years and 1005 women aged 80 years and older who were participants in the prospective Study of Osteoporotic Fractures. Follow-up averaged 4.9 (+/- 1.0) years after baseline measurement of appendicular bone density (single-photon absorptiometry; Osteon-Osteo Analyzer) and 2.9 (+/- 0.6) years after measurement of hip and anteroposterior lumbar spine bone density (dual-energy X-ray absorptiometry; Hologic QDR 1000) at a later examination. In general, measurements of bone density in the oldest women retained their predictive value for fractures. Among women aged 80 and over a 1 standard deviation decrease in bone density of the distal radius was associated with an increased risk of non-spine (relative risk: 1.6; 95% confidence interval: 1.3, 1.8), wrist (1.7; 1.2, 2.4) and humerus fracture (2.9; 1.8, 4.7), while a 1 standard deviation decrease in femoral neck bone density was associated with an increased risk of non-spine (1.9; 1.6, 2.4), humerus (2.4; 1.2, 4.7) and hip fracture (2.1; 1.4; 3.2). However, only trochanteric but not femoral neck fractures were associated with low bone density in these oldest women. The excess risk of fracture in women with below-median bone density was greater in those aged 80 years and over compared with the younger women: 38.4 v 20.4 per 1000 woman-years for non-spine fracture and 12.2 v 3.2 per 1000 woman-years for hip fracture. (ABSTRACT TRUNCATED AT 250 WORDS).
Keywords: Bone Density; Fractures--epidemiology; Hip Fractures--epidemiology; Shoulder Fractures--epidemiology; Wrist Injuries--epidemiology; Other Subjects (MeSH): Absorptiometry, Photon; Caucasoid Race; Predictive Value of Tests; Prospective Studies; United States; Limits: Aged; Aged, 80 and over; Female; Human

Author: Nusbaum NJ
Title: How do geriatric patients recover from surgery?
Journal: Southern Medical Journal
Year: 1996 Oct
Volume: 89
Number: 10
Pages: 950-957
Notes: Surgery
Abstract: Age is often a marker for comorbid illnesses that may complicate attempts at surgical intervention. Careful selection is important in deciding to recommend surgery for geriatric patients, but selected elderly patients may even benefit from major surgery. Ancillary services, such as nutrition, nursing, and physical therapy, are particularly important components in the postoperative care of geriatric patients. Case series have shown the ability of geriatric patients to recover from major surgical procedures, including cardiac surgery, neurosurgery, and oncologic surgery. In general, advanced age is not a contraindication to surgery but it reinforces the need for careful preoperative evaluation and vigorous postoperative support of the patient.
Keywords: Aging--physiology; Surgical Procedures, Operative; Other Subjects (MeSH): Brain--surgery; Cardiac Surgical Procedures; Comorbidity; Neoplasms--surgery; Nutrition; Patient Selection; Physical Therapy; Postoperative Care; Preoperative Care; Surgical Procedures, Operative--contraindications; Surgical Procedures, Operative--nursing; Surgical Procedures, Operative--rehabilitation; Limits: Aged; Human

Author: Ooi WL, Barrett S, Hossain M, Kelley-Gagnon M, Lipsitz LA
Title: Patterns of orthostatic blood pressure change and their clinical correlates in a frail, elderly population
Journal: Journal of the American Medical Association
Year: 1997 Apr 23-30
Volume: 277
Number: 16
Pages: 1299-1304
Notes: Hypertension
Abstract: OBJECTIVES: To determine patterns of within-day orthostatic blood pressure (BP) changes and clinical factors correlated with them in frail, elderly nursing home residents. DESIGN: Prevalence study of orthostatic BP change. SETTING: Sample of 45 nursing homes. PARTICIPANTS: A total of 911 long-stay residents, aged 60 years or older, able to stand for at least 1 minute. MAIN OUTCOME MEASURES: Supine and 1-minute and 3-minute standing BP measurements and heart rates, taken by a random-zero sphygmomanometer before and after breakfast and before and after lunch, symptoms upon standing, medication use, and clinical and functional assessments. RESULTS: Four orthostatic hypotension (OH) groups were defined based on the frequency of a 20 mm Hg or greater orthostatic BP decline during any of 8 postural change measures: no OH group (48.5%); isolated OH group (only once, 18.3%); variable OH group (2-3 times, 19.9%); and persistent OH group (> or =4 times, 13.3%). Orthostatic hypotension was most prevalent before breakfast, especially 1 minute after standing (21.3%), and least prevalent after lunch after 3 minutes of standing (4.9%) (P=.001). A regression approach to repeated measures analysis (method of general estimating equations) showed the following to be significantly associated with OH (P< or =.05): elevated supine systolic BP before breakfast, dizziness/light-headedness on standing, male sex, medication for Parkinson disease, time of day (particularly before breakfast), greater independence in activities of daily living, and low body mass index. CONCLUSIONS: Orthostatic hypotension occurs in more than half of frail, elderly nursing home residents, but is highly variable over time. It is most prevalent in the morning when subjects first arise and when supine BP is highest. The relationship of OH with elevated BP, but not antihypertensive medication use, suggests that the treatment of hypertension may improve postural BP regulation.
Keywords: Blood Pressure; Frail Elderly; Hypotension, Orthostatic--epidemiology; Other Subjects (MeSH): Analysis of Variance; Blood Pressure Determination; Homes for the Aged; Multivariate

Analysis; Nursing Homes; Prevalence; Risk Factors; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Ouslander JG, Palmer MH, Rovner BW, German PS
Title: Urinary incontinence in nursing homes: incidence, remission and associated factors
Journal: Journal of the American Geriatrics Society
Year: 1993 Oct
Volume: 41
Number: 10
Pages: 1083-1089
Notes: Urinary Conditions
Abstract: OBJECTIVE: To determine the incidence and remission rates of daytime urinary incontinence (UI) in a cohort of newly admitted nursing home (NH) residents. DESIGN: Prospective cohort study. SETTING: Eight proprietary NHs in Maryland. SUBJECTS: Four hundred thirty new admissions age 65 or older who were participants in a larger prospective study of mental morbidity and adjustment to the NH. MEASURES: Nurses aides' reports of continence status, psychiatric examinations, and nursing staff assessments of mobility at 2 weeks, 2 months, and 1 year after NH admission. RESULTS: The prevalence of daytime UI at admission was 39% in both females and males. Among the 293 members (68%) of the admission cohort remaining in the NHs 2 months after admission, the incidence of daytime UI was 27% (21% in females, 51% in males); daytime UI resolved in 23% (24% in females, 20% in males). Among the 178 members (41%) of the admission cohort remaining in the NHs 1 year after admission, the incidence of daytime UI between 2 months and 1 year after admission was 19% (16% in females, 46% in males); daytime UI resolved in 22% (23% in females, 14% in males). The continence status of about two-thirds of residents remaining in the NH at 1 year after admission was stable over time: 22% had daytime UI, and 42% were continent at all three data collection points. The development of daytime UI was associated with male sex, the diagnosis of dementia, fecal incontinence, and the inability to ambulate or transfer independently. Resolution of daytime UI was associated with the absence of these characteristics. CONCLUSIONS: Despite limitations attributable to the method of defining UI and potential biases related to the attrition of the admission cohort over time, this is the first large prospective study to examine the incidence and remission patterns of daytime UI among NH residents. The strong association between UI and dementia was validated for the first time by direct psychiatric examinations. Sex and mobility are also closely associated with the development and remission of UI in this setting. This study provides some valuable data that can be used to assess the impacts of the recently developed Resident Assessment Protocol for UI and Agency for Health Care Policy and Research Clinical Practice Guidelines.
Keywords: Nursing Homes; Urinary Incontinence--epidemiology; Other Subjects (MeSH): Activities of Daily Living; Cohort Studies; Fecal Incontinence--complications; Incidence; Mental Disorders--complications; Prospective Studies; Recurrence; Remission, Spontaneous; Sex Distribution; Urinary Incontinence--complications; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Owsley C, Ball K, McGwin G Jr., Sloane ME, Roenker DL, White MF, Overley ET
Title: Visual processing impairment and risk of motor vehicle crash among older adults
Journal: Journal of the American Medical Association
Year: 1998 Apr 8
Volume: 279
Number: 14
Pages: 1083-1088
Notes: Vision Care
Abstract: CONTEXT: Motor vehicle crash risk in older drivers has been associated with visual acuity loss, but only weakly so, suggesting other factors contribute. The useful field of view is a measure that reflects decline in visual sensory function, slowed visual processing speed, and impaired visual attention skills. OBJECTIVE: To identify whether measures of visual processing ability, including the useful field of view test, are associated with crash involvement by older drivers. DESIGN: Prospective cohort study with 3 years of follow-up, 1990-1993. SETTING:

Ophthalmology clinic assessment of community-based sample. PATIENTS: A total of 294 drivers aged 55 to 87 years at enrollment. MAIN OUTCOME MEASURE: Motor vehicle crash occurrence. RESULTS: Older drivers with a 40% or greater impairment in the useful field of view were 2.2 times (95% confidence interval, 1.2-4.1) more likely to incur a crash during 3 years of follow-up, after adjusting for age, sex, race, chronic medical conditions, mental status, and days driven per week. This association was primarily mediated by difficulty in dividing attention under brief target durations. CONCLUSION: Reduction in the useful field of view increases crash risk in older drivers. Given the relatively high prevalence of visual processing impairment among the elderly, visual dysfunction and eye disease deserve further examination as causes of motor vehicle crashes and injury.

Keywords: Accidents, Traffic; Automobile Driving; Vision; Other Subjects (MeSH): Aging; Follow-Up Studies; Multivariate Analysis; Proportional Hazards Models; Prospective Studies; Risk Factors; Task Performance and Analysis; Vision Tests; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Parmelee PA
Title: Pain in cognitively impaired older persons
Journal: Clinics in Geriatric Medicine
Year: 1996 Aug
Volume: 12
Number: 3
Pages: 473-487
Notes: Pain Management
Abstract: To summarize, there has been shamefully little empirical research directly examining the prevalence and correlates of pain among cognitively impaired older people. Even less is known about techniques for assessing and managing pain in this group. Existing evidence suggests that cognitively impaired older persons may voice fewer complaints about pain, but there is no reason to believe that they are in fact at less risk of pain than their cognitively intact age-mates. Rather, for whatever reason, persons with cognitively deficits appear to be less inclined to report pain than are intact elders of similar health status. This reporting difference may account at least in part for the fact that pain is less likely to be treated aggressively among cognitively impaired individuals. Unfortunately, knowing the reason for this state of affairs does not mitigate its implication: cognitive deficits place frail older persons at risk of unnecessary pain simply because it is not properly identified. Data reviewed in this chapter suggest that accurate assessment of pain in cognitively impaired older persons, far from being impossible, may actually be only slightly more demanding than it is in intact individuals. Even among markedly impaired elders, self-reports should certainly be taken as valid indicators; early evidence suggests promising avenues for developing reliable, clear-cut guidelines for the nonverbal assessment of pain in very severely demented individuals. As the nation grows older and medical care advances, a growing proportion of individuals can expect to live well into their eighth and even ninth decades. Unfortunately, with this extended life span comes increased likelihood of both cognitive impairment and pain. Thus, expansion of our repertoire of techniques for assessing and managing pain among cognitively impaired older persons must be a central priority for research on pain in late life.
Keywords: Aging; Cognition Disorders--complications; Pain; Other Subjects (MeSH): Aging--physiology; Clinical Trials; Pain--complications; Pain--physiopathology; Pain Measurement; Reproducibility of Results; Limits: Aged; Human; Support, U.S. Gov't, P.H.S.

Author: Parmelee PA, Katz IR, Lawton MP
Title: The relation of pain to depression among institutionalized aged
Journal: Journal of Gerontology
Year: 1991 Jan
Volume: 46
Number: 1
Pages: P15-P21
Notes: Pain Management
Abstract: Nursing home and congregate apartment residents (N = 598) were classified on the basis of a

DSM-IIIR symptom checklist as suffering possible major, minor, or no depression; they also completed the Geriatric Depression Scale (GDS) and the Profile of Mood States (POMS). Possible major depressives reported more intense pain and a greater number of localized pain complaints than did minor depressives; nondepressed individuals reported the least intense pain and fewest localized complaints. The effect remained strong even when functional disability and health status were controlled statistically. Both pain intensity and number of localized complaints were correlated with GDS and POMS factor scores, but strength and direction of associations varied with level of depression. Item-by-item examination of localized complaints again indicated that more depressed individuals were more likely to report pain, particularly where physicians had identified a physical problem that might account for the pain. Results are compared with previous research on pain among younger individuals. Implications for treatment of depressed elderly are discussed.

Keywords: Aging--psychology; Depression--psychology; Depressive Disorder--psychology; Institutionalization; Pain--psychology; Other Subjects (MeSH): Activities of Daily Living; Affect; Aging--physiology; Analysis of Variance; Depression--diagnosis; Depression--physiopathology; Depressive Disorder--diagnosis; Depressive Disorder--physiopathology; Health Status; Nursing Homes; Pain--physiopathology; Pain Measurement; Residential Facilities; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Parmelee PA, Smith B, Katz IR
Title: Pain complaints and cognitive status among elderly institution residents
Journal: Journal of the American Geriatrics Society
Year: 1993 May
Volume: 41
Number: 5
Pages: 517-522
Notes: Pain Management
Abstract: OBJECTIVE: To examine the association between self-reported pain and cognitive impairment among frail elderly institution residents. DESIGN: A cross-sectional correlational study. SETTING: A large urban nursing home and congregate apartment complex housing predominantly Jewish elderly. PARTICIPANTS: Seven hundred fifty-eight elderly institution residents (30% in the nursing home, 70% in congregate apartments). The sample was 70% female and averaged 83.3 years of age. MEASUREMENTS: Respondent self-reports tapped pain intensity, number of localized pain complaints, cognitive status, and disability in performance of activities of daily living. Attending physicians or physician assistants rated respondents' health status. MAIN RESULTS: Pain intensity and number of localized pain complaints bore small but significant negative relationships to cognitive impairment. Pain was positively associated with physician-rated ill health and functional disability. The association between pain and cognitive status remained significant even when controlled statistically for effects of physical health and functional disability. Item-by-item examination of localized pain complaints indicated that markedly cognitively impaired individuals were less likely to report pain in the back and joints. However, examination of possible physical causes of reported pain revealed no differences between pain reports of cognitively impaired versus intact individuals in either the presence or the absence of a likely physical cause. CONCLUSIONS: These data provide no evidence for the "masking" of pain complaints by cognitive impairment. They suggest instead that, although cognitively impaired elderly may slightly underreport experienced pain, their self-reports are generally no less valid that those of cognitively intact individuals. Limitations of the research are acknowledged and implications for treatment of cognitively impaired institution residents are discussed.

Keywords: Cognition Disorders--epidemiology; Frail Elderly; Pain--epidemiology; Other Subjects (MeSH): Activities of Daily Living; Analysis of Variance; Cognition Disorders--complications; Cognition Disorders--diagnosis; Comorbidity; Confounding Factors (Epidemiology); Cross-Sectional Studies; Geriatric Assessment; Health Status; Homes for the Aged; Housing for the Elderly; Length of Stay--statistics & numerical data; Mental Status Schedule; Pain--complications; Pain--diagnosis; Pain Measurement; Prevalence; Risk Factors; Sensitivity and Specificity; Severity of Illness Index; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Paul SD, O'Gara PT, Mahjoub ZA, DiSalvo TG, O'Donnell CJ, Newell JB, Villarreal-Levy G, Smith AJ, Kondo NI, Cararach M, Ferrer L, Eagle KA
Title: Geriatric patients with acute myocardial infarction: Cardiac risk factor profiles, presentation, thrombolysis, coronary interventions, and prognosis
Journal: American Heart Journal
Year: 1996 Apr
Volume: 131
Number: 4
Pages: 710-715
Notes: Ischemic Heart Disease
Abstract: Elderly patients have a higher mortality after acute myocardial infarction (MI) yet are treated less aggressively than younger patients. To determine (I) the risk-factor profiles, (2) presentation, (3) management, and (4) hospital outcomes for the elderly (> or = 75 years) compared with middle aged (66 to 74 years) and younger (< or = 65 years) patients in the 1990s, we studied 561 consecutive patients with acute MI. Compared with younger patients, the elderly more frequently had congestive heart failure (40 percent vs 14 percent; $p < 0.00001$) and non-Q wave infarctions (76 percent vs 56 percent; $p < 0.005$), received thrombolysis (9 percent vs 34 percent; $p < 0.0001$), and underwent catheterization (35 percent vs 73 percent; $p < 0.00001$), percutaneous transluminal coronary angioplasty (9 percent vs 31 percent; $p < 0.0002$), and coronary artery bypass grafting (5 percent vs 15 percent; $p < 0.03$) less frequently. Those who did not receive thrombolysis all had contraindications. Mortality was higher in the elderly (19 percent vs 5 percent; $p < 0.004$), especially among those who did not receive thrombolysis (20 percent vs 7 percent; $p < 0.03$). Multivariate predictors of mortality included age, and congestive heart failure. In addition, when clinical course and management variables were considered, use of the intraaortic balloon pump was a predictor of mortality, whereas undergoing coronary angiography was a negative predictor (relative risk, 0.3; 95 percent confidence intervals, 0.1 to 0.6).
Keywords: Myocardial Infarction; Other Subjects (MeSH): Age Factors; Angioplasty, Transluminal, Percutaneous Coronary; Coronary Angiography; Coronary Artery Bypass; Diagnosis, Differential; Electrocardiography; Heart Failure, Congestive--etiology; Multivariate Analysis; Myocardial Infarction--complications; Myocardial Infarction--diagnosis; Myocardial Infarction--etiology; Myocardial Infarction--mortality; Myocardial Infarction--therapy; Prognosis; Risk Factors; Thrombolytic Therapy; Treatment Outcome; Limits: Adult; Aged; Female; Human; Male; Middle Age

Author: Pendergast DR, Fisher NM, Calkins E
Title: Cardiovascular, neuromuscular, and metabolic alterations with age leading to frailty
Journal: Journal of Gerontology
Year: 1993 Sep
Volume: 48
Number:
Pages: 61-67
Notes: Function
Abstract: As members of our society live longer, a greater percentage of the population will be older. These demographic changes will stress our social and medical delivery system, unless interventions can alter the course leading to frailty. Maximal aerobic power decreases with age, due to a decrease in cardiac output, and is exacerbated by cardiovascular disease. Asymptomatic aging does not reduce cardiovascular function to an extent that would lead to loss of function. Metabolism, endurance, and contraction velocity and muscle strength remain relatively high until 40, 50, and 60 years of age, respectively. After age 60, there are dramatic decreases (approximately 10% per year) which lead to loss of function and independence. The loss of muscle function leads to an increase in the likelihood of falls (approximately 4-fold). Exercise programs utilizing "aerobic" exercise activities do not lead to an increase in muscle function, whereas programs designed specifically for muscle can increase function and, presumably, reduce the risk of falls and injuries.
Keywords: Aging--metabolism; Aging--physiology; Energy Metabolism--physiology; Frail Elderly; Heart--

physiology; Muscles--physiology; Other Subjects (MeSH): Muscles--innervation; Limits: Adult; Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.

Author: Rao R, Dening T, Brayne C, Huppert FA
Title: Suicidal thinking in community residents over eighty
Journal: International Journal of Geriatric Psychiatry
Year: 1997 Mar
Volume: 12
Number: 3
Pages: 337-343
Notes: Dementia
Abstract: OBJECTIVE: Main objective: to study the relationship between suicidal thinking and both cognitive impairment and depression. DESIGN: Random sample selected for interview, all of whom were a cohort in a pre-existing epidemiological study of dementia. SETTING: Community residents. PATIENTS AND OTHER PARTICIPANTS: Participants aged over 81. Study excluded the following: moved out of area/died/ too frail/severe communication difficulties/refused interview, refusal by GP/family/carers, 300 names selected at random from database. 170 eligible participants approached: 31 refused, 125 interviewed, 125 informants approached for interview; 118 interviewed. MAIN OUTCOME MEASURES: CAMDEX, 15-item Geriatric Depression Scale (GDS), and Scale for Suicidal Ideation (SSI) (including informant versions of latter 2 scales). RESULTS: 9 people showed suicidal thinking, all women: 6 had clinical evidence of cardiovascular/cerebrovascular disease. Those with suicidal thinking showed higher CAMDEX depression scores, weaker strength of the wish to go on living, higher rates of expressing wish to die and higher rates of depressive illness and mixed DAT/multi-infarct dementia as primary psychiatric diagnoses. No significant associations between suicidal thinking and GDS scores, Alzheimer-type dementia alone, awareness of memory difficulties or severity of dementia. CONCLUSIONS: Results show association between suicidal thinking and both depression and mixed DAT/multi-infarct dementia, but do not support an association between suicidal thinking and awareness of memory problems/severity of dementia. Given the methodological limitations, the significance of the results should be viewed with caution. Further exploration of the role of cerebrovascular disease in depressive disorder is suggested.
Keywords: Frail Elderly--psychology; Suicide--psychology; Thinking; Aged, 80 and over--psychology; Other Subjects (MeSH): Activities of Daily Living--psychology; Adaptation, Psychological; Alzheimer Disease--diagnosis; Alzheimer Disease--psychology; Awareness; Dementia--diagnosis; Dementia--psychology; Dementia, Multi-Infarct--diagnosis; Dementia, Multi-Infarct--psychology; Depressive Disorder--diagnosis; Depressive Disorder--psychology; Neuropsychological Tests; Personality Assessment; Risk Factors; Sick Role; Suicide--prevention & control; Limits: Aged; Female; Human; Male

Author: Ray NF, Chan JK, Thamer M, Melton LJ 3rd
Title: Medical expenditures for the treatment of osteoporotic fractures in the United States in 1995: report from the National Osteoporosis Foundation
Journal: Journal of Bone and Mineral Research
Year: 1997 Jan
Volume: 12
Number: 1
Pages: 24-35
Notes: Osteoporosis
Abstract: Osteoporotic fractures are a significant public health problem, resulting in substantial morbidity and mortality. Previous estimates of the economic burden of osteoporosis, however, have not fully accounted for the costs associated with treatment of nonhip fractures, minority populations, or men. Accordingly, the 1995 total direct medical expenditures for the treatment of osteoporotic fractures were estimated for all persons aged 45 years or older in the United States by age group, sex, race, type of fracture, and site of service (inpatient hospital, nursing home, and outpatient). Osteoporosis attribution probabilities were used to estimate the proportion of health service utilization and expenditures for fractures that resulted from

osteoporosis. Health care expenditures attributable to osteoporotic fractures in 1995 were estimated at $13.8 billion, of which $10.3 billion (75.1%) was for the treatment of white women, $2.5 billion (18.4%) for white men, $0.7 billion (5.3%) for nonwhite women, and $0.2 billion (1.3%) for nonwhite men. Although the majority of U.S. health care expenditures for the treatment of osteoporotic fractures were for white women, one-fourth of the total was borne by other population subgroups. By site-of-service, $8.6 billion (62.4%) was spent for inpatient care, $3.9 billion (28.2%) for nursing home care, and $1.3 billion (9.4%) for outpatient services. Importantly, fractures at skeletal sites other than the hip accounted for 36.9% of the total attributed health care expenditures nationally. The contribution of nonhip fractures to the substantial morbidity and expenditures associated with osteoporosis has been underestimated by previous researchers.

Keywords: Fractures--economics; Health Expenditures; Osteoporosis--economics; Osteoporosis, Postmenopausal--economics; Other Subjects (MeSH): Aging--pathology; Ambulatory Care--economics; Ambulatory Care--statistics & numerical data; Cost-Benefit Analysis; Fractures--epidemiology; Fractures--etiology; Fractures--therapy; Hip Fractures--economics; Hip Fractures--epidemiology; Hip Fractures--therapy; Hospitalization--economics; Hospitalization--statistics & numerical data; Nursing Homes--economics; Nursing Homes--statistics & numerical data; Osteoporosis--complications; Osteoporosis--physiopathology; Osteoporosis, Postmenopausal--complications; Osteoporosis, Postmenopausal--physiopathology; Public Health--economics; Public Health--standards; Racial Stocks; Sex Factors; Societies, Medical; United States--epidemiology; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Reilly BM, Wagner M, Magnussen CR, Ross J, Papa L, Ash J
Title: Promoting inpatient directives about life-sustaining treatments in a community hospital. Results of a 3-year time-series intervention trial
Journal: Archives of Internal Medicine.
Year: 1995 Nov 27
Volume: 155
Number: 21
Pages: 2317-2323
Notes: End of Life
Abstract: BACKGROUND: Hospitalization presents an opportunity for physicians to discuss advance directives with patients and to encourage completion of health care proxies. OBJECTIVE: To prospectively promote discussion and documentation of treatment-specific directives about life-sustaining interventions (cardiopulmonary resuscitation, admission to critical care units, mechanical ventilation, electrical cardioversion, and vasopressor therapy) among unselected medical inpatients in a community teaching hospital. METHODS: We conducted a time-series intervention trial from January 1, 1991, through June 30 1993, divided into three phases. During the education phase, we provided reminders, education, and feedback to attending physicians; during the intervention phase, we promoted a new documentation form for directives to be used by attending physicians; during the control phase, no interventions occurred. We studied consecutive patients (N = 1780) admitted to the hospital acute medical service in each of the following 10 periods: three in the education phase (n = 598), three in the intervention phase (n = 826), and four in the control phase (n = 356). The primary outcome measures were the frequency and content of directives documented by attending physicians in their patients' hospital charts. Secondary outcome measures included physicians' and patients' attitudes about directives, surveyed repeatedly. RESULTS: The proportion of inpatients with directives increased significantly during the intervention phase (62.5% vs 23.6% during the education phase and 25.3% during the control period, P < .001, Pearson chi 2 test). During the final intervention phase, 227 (83.2%) of 273 inpatients had directives documented in the hospital chart. Increases in clinically important ("impact") directives usually involved intensive care, not do-not-resuscitate status. Overall, 366 (86.7%) of 422 physician-attested directives agreed with the treatment preferences of interviewed patients (kappa ranges, 0.53 to 0.79). Physicians' attitudes about and interest in directives improved. CONCLUSIONS: Institutional interventions can facilitate attending physicians' documentation of treatment-specific directives about life-sustaining care for most medical inpatients. More research is needed to confirm the effect of these efforts on quality and cost of hospital care, patients' autonomy, and their

eventual execution of durable directives and proxies.
Keywords: Advance Directives; Hospitals, Community; Hospitals, Teaching; Patient Education--organization & administration; Other Subjects (MeSH): Attitude to Health; Documentation; Knowledge, Attitudes, Practice; Medical Staff, Hospital--education; Medical Staff, Hospital--psychology; Organizational Policy; Outcome Assessment (Health Care); Prospective Studies; Limits: Aged; Human; Middle Age

Author: Reilly BM, Wagner M, Ross J, Magnussen CR, Papa L, Ash J
Title: Promoting completion of health care proxies following hospitalization. A randomized controlled trial in a community hospital
Journal: Archives of Internal Medicine
Year: 1995 Nov 13
Volume: 155
Number: 20
Pages: 2202-2206
Notes: End of Life
Abstract: BACKGROUND: The wider use of written advance directives is popular but problematic. We have shown previously that acute hospitalization in the era of the Patient Self-Determination Act can facilitate directive discussions and documentation. We investigated whether a simple educational intervention following hospitalization would increase patients' execution of durable health care proxies. METHODS: We studied a consecutive series of patients (n = 162) recently discharged from the acute care medical service of a community hospital where they had been interviewed about advance directives. The intervention group was randomized to receive an educational brochure and encouragement to execute durable health care proxies. The primary outcome was the proportion of patients in each group with completed durable health care proxies on file in their primary physicians' offices. RESULTS: Overall, only 20 (12.3%) of 162 patients had documented proxies, 17 of whom (85%) were 65 years of age or older, with no difference between the intervention and control groups (11 [13.3%] of 83 vs nine [11.4%] of 79, respectively). Subgroup analysis of elderly patients also revealed no intervention effect. Univariate analysis revealed three significant predictors of patients' proxy completion: patient age, whether patients had discussed directives in hospital with their physicians, and whether patients' physicians completed proxies for themselves. Multiple logistic regression analysis showed that these three variables interact to predict the probability of patients' executing proxies. CONCLUSIONS: Simple educational interventions, like those mandated by the Patient Self-Determination Act, are unlikely to increase patients' completion of durable healthcare proxies. Multidimensional interventions that target both elderly patients and their personal physicians should be tested in the future. Discussion in hospital about advance directives can be a useful component of such efforts.
Keywords: Advance Directives; Hospitalization; Patient Education; Physician's Role; Other Subjects (MeSH): Age Factors; Hospitals, Community; Logistic Models; Limits: Adolescence; Adult; Aged; Aged, 80 and over; Female; Human; Male; Middle Age

Author: Reuben DB, Walsh K, Moore AA, Damesyn M, Greendale GA
Title: Hearing loss in community-dwelling older persons: national prevalence data and identification using simple questions
Journal: Journal of the American Geriatrics Society
Year: 1998 Aug
Volume: 46
Number: 8
Pages: 1008-1011
Notes: Hearing Loss
Abstract: OBJECTIVE: To estimate the prevalence of hearing loss among community-dwelling older persons according to clinical criteria and to develop a brief self-report screening instrument to detect hearing loss. DESIGN: Survey. SETTING: National probability sample of noninstitutionalized older persons. PARTICIPANTS: A total of 2506 persons aged 55 to 74 who participated in the National Health and Nutrition Examination Survey. MAIN OUTCOME

MEASURES: Hearing loss as defined by Ventry and Weinstein (VW) criteria and by the High Frequency Pure-Tone Average (HFPTA) scale. RESULTS: Hearing loss by VW criteria was present in 14.2% and by HFPTA criteria in 35.1% of those surveyed. The prevalence increased with advancing age and was higher among men and those with less education. A logistic regression model identified six independent factors for hearing loss by VW criteria: age > or = 70 years (adjusted odds-ratio (AOR) 2.7, 95% confidence interval (95% CI) 1.6, 4.4), male gender (AOR 3.0, 95% CI 1.9, 4.8), < or = 12th grade education (AOR 3.8, 95% CI 1.8, 7.7), having seen a doctor for deafness or hearing loss (AOR 8.9, 95% CI 5.3, 14.9), unable to hear a whisper across a room (AOR 3.2, 95% CI 2.0, 5.1), and unable to hear a normal voice across a room (AOR 6.2, 95% CI 2.6, 14.9). A clinical scale based on the logistic model had 80% sensitivity and 80% specificity in predicting hearing loss using VW criteria and 59% sensitivity and 88% specificity in predicting hearing loss using HFPTA criteria. CONCLUSIONS: Hearing loss, as defined by two clinical criteria, is common and can be screened for accurately using simple questions that assess sociodemographic and hearing-related characteristics.

Keywords: Hearing Disorders--epidemiology; Other Subjects (MeSH): Health Surveys; Odds Ratio; Prevalence; Risk Factors; United States--epidemiology; Limits: Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.

Author: Richardson JP
Title: Bacteremia in the elderly
Journal: Journal of General Internal Medicine
Year: 1993 Feb
Volume: 8
Number: 2
Pages: 89-92
Notes: Urinary Conditions
Abstract: Bacteremia has a high mortality rate in all elderly populations, but especially nursing home residents and the hospitalized elderly. Elderly patients with bacteremia may present in a nonspecific fashion with incontinence, with falls, or afebrile. Mortality is greater in patients whose bacteremia originates outside the genitourinary tract or who are bacteremic with gram-positive organisms. Early appropriate treatment has been found to reduce mortality in some studies, especially in patients over 85 years old or with gram-positive bacteremias. Gram-negative bacteremias are more common than those caused by gram-positive organisms in most studies. E. coli is the most common gram-negative isolate, followed in most studies by either Proteus or Klebsiella. Staphylococcus aureus is the most common gram-positive isolate; enterococcus and pneumococcus are also frequently isolated. Bacteremia in the elderly may present in a subtle fashion. Appropriate antibiotic therapy may reduce mortality and should include antibiotic coverage for S. aureus and gram-negative bacilli, as well as for anaerobes if pressure ulcers are suspected as the source. Clinicians who care for the elderly should be aware of the possible presentations of bacteremia and the appropriate treatment in all clinical settings.
Keywords: Bacteremia--epidemiology; Other Subjects (MeSH): Bacteremia--diagnosis; Bacteremia--microbiology; Bacteremia--therapy; Gram-Negative Bacterial Infections--epidemiology; Risk Factors; Survival Rate; Limits: Aged; Human

Author: Robbins AS, Rubenstein LZ, Josephson KR, Schulman BL, Osterweil D, Fine G
Title: Predictors of falls among elderly people. Results of two population-based studies
Journal: Archives of Internal Medicine
Year: 1989 Jul
Volume: 149
Number: 7
Pages: 1628-1633
Notes: Falls and Mobility Problems
Abstract: A study was performed to identify and rank risk factors for falling among populations of institutionalized (fallers, N = 79, nonfallers, N = 70) and noninstitutionalized (fallers, N = 34, nonfallers, N = 34) elderly persons. Fallers were matched by age, sex, and living location to

nonfaller control subjects. A nurse practitioner performed a comprehensive physical assessment in all subjects using a standardized protocol and physician consultation. Fallers in both populations were significantly more physically and functionally impaired than control subjects. Logistic regression identified hip weakness, poor balance, and number of prescribed medications as factors most strongly associated with falling among institutionalized subjects. A fall prediction model was developed from these findings yielding 76% overall predictive accuracy (89% sensitivity, 60% specificity). Using the model, the predicted 1-year risk of falling ranged from 12% for persons with none of the three risk factors to 100% for persons with all three risk factors. Findings among noninstitutionalized subjects were similar. These data support the concept of performing focused fall risk assessments to identify elderly patients at high risk for falling.

Keywords: Accidental Falls--statistics & numerical data; Accidents--statistics & numerical data; Other Subjects (MeSH): Activities of Daily Living; Follow-Up Studies; Homes for the Aged; Nursing Homes; Prospective Studies; Risk Factors; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, Non-P.H.S.

Author: Robinson MK, DeHaven MJ, Koch KA
Title: Effects of the Patient Self-Determination Act on patient knowledge and behavior
Journal: Journal of Family Practice
Year: 1993 Oct
Volume: 37
Number: 4
Pages: 363-368
Notes: End of Life
Abstract: BACKGROUND. In effect since 1991, the Patient Self-Determination Act (PSDA) requires that institutions receiving government insurance payments document that they have informed patients of their right to decide on life-preserving measures. Implementing the PSDA should make discussion of advance directives a routine part of acute care hospital admissions. Yet the proportion of those actually completing advance directives such as living wills remains relatively small. METHODS. A telephone survey questionnaire was administered to patients who were hospitalized before and after the implementation of the PSDA. Survey questions probed patient knowledge about living wills and behavior toward obtaining living wills. RESULTS. Patient knowledge about advance medical directives correlated positively with race (white), income (> or = $10K), and level of education (high school or more). Moreover, a significantly greater number of patients hospitalized after implementation of the PSDA knew about living wills than the number of those hospitalized before the Act's implementation. However, actually obtaining a living will correlated positively with age (> 36 years) alone, and implementation of the PSDA was not related to the number of patients who obtained a living will. CONCLUSIONS. Although the study results show that the measures the hospital in the study used to meet PSDA requirements increased patient awareness of living wills, they failed to increase the number of patients who act on this awareness. This finding indicates that simply informing patients about their right of self-determination is insufficient to meet the intended goals of the legislation.

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Keywords: Advance Directives--legislation & jurisprudence; Patient Participation--legislation & jurisprudence; Other Subjects (MeSH): Freedom; Knowledge, Attitudes, Practice; Living Wills--legislation & jurisprudence; Patient Compliance; Patient Education; United States; Limits: Adult; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Roca R
Title: Psychosocial aspects of surgical care in the elderly patient
Journal: Surgical Clinics of North America
Year: 1994 Apr
Volume: 74
Number: 2
Pages: 223-243
Notes: Surgery
Abstract: Delirium, dementia, and depression often complicate the care of elderly surgical patients. Simple screening procedures performed preoperatively and postoperatively facilitate the early

detection of these conditions and enable the physician to promptly institute appropriate treatment. Although the evaluation and management of these disorders are often within the range of the surgical treatment team, psychiatric consultation should be obtained when uncertainty exists about diagnosis or therapy.
Keywords: Geriatric Assessment; Surgical Procedures, Operative--psychology; Other Subjects (MeSH): Delirium, Dementia, Amnestic, Cognitive Disorders--etiology; Delirium, Dementia, Amnestic, Cognitive Disorders--therapy; Depression--etiology; Depression--therapy; Postoperative Period; Limits: Aged; Aged, 80 and over; Human.

Author: Rocca WA, Amaducci LA, Schoenberg BS
Title: Epidemiology of clinically diagnosed Alzheimer's disease
Journal: Annals of Neurology
Year: 1986 May
Volume: 19
Number: 5
Pages: 415-424
Notes: Dementia
Abstract: This report reviews the current status of descriptive and analytic epidemiology of clinically diagnosed Alzheimer's disease (AD). Since AD can be diagnosed with certainty only at autopsy, currently available epidemiological data are based on a presumed clinical diagnosis. Current data indicate that AD represents a major health problem, at least in the developed countries. The prevalence ratio for AD ranges between 1.9 and 5.8 cases per 100 population aged 65 and over. Moreover, its prevalence is likely to increase in the next twenty years as a consequence of current demographic trends. The prevalence ratio for AD increases steeply with age and is higher in females. Incidence rates show a similar pattern, suggesting that AD should not be subdivided in a presenile and a senile form based on age of onset alone. Annual incidence rates of 2.4 cases per 100,000 population between ages 40 and 60, and 127 cases per 100,000 population after age 60 have been reported. Several case-control studies show that the occurrence of either dementia or Down's syndrome in other family members, advanced age of the mother at subject's birth, and head injury are possible risk factors.
Keywords: Alzheimer Disease--epidemiology; Other Subjects (MeSH): Age Factors; Alzheimer Disease--etiology; Alzheimer Disease--genetics; Brain Injuries--complications; Prognosis; Sex Factors; Virus Diseases--complications; Limits: Human

Author: Rogers WB, von Dohlen TW, Frank MJ
Title: Management of coronary heart disease in the elderly
Journal: Clinical Cardiology
Year: 1991 Aug
Volume: 14
Number: 8
Pages: 635-642
Notes: Ischemic Heart Disease
Abstract: The prevalence of coronary heart disease (CHD) increases rapidly with advancing age and remains the major cause of death among elderly Americans. The number of elderly has doubled in the last 30 years and is projected to continue growing at more than twice the rate of the general population. The resources required in managing CHD in this population will reach astronomical levels during the next few decades and will severely tax our ability to provide adequate medical care to all citizens, unless cost effective diagnostic and therapeutic strategies are developed which do not severely compromise health care. Risk factors for CHD should be identified and modified as early in life as possible. Modification of risk factors begun at advanced age appears to confer benefit, however. Anti-ischemic drug therapy is the treatment of choice for patients with mild or moderate stable angina. Select elderly may be willing to accept the increased risks of coronary revascularization to achieve relief from debilitating angina or prolongation of life. Physicians must use care in planning diagnostic and therapeutic strategies. Quality of life and independence are often more important considerations than longevity in this age group.

Keywords: Coronary Disease--therapy; Aged; Other Subjects (MeSH): Cardiotonic Agents--adverse effects; Cardiotonic Agents--therapeutic use; Coronary Disease--diagnosis; Coronary Disease--epidemiology; Mass Screening; Myocardial Revascularization; Risk Factors; Limits: Human

Author: Rolandelli RH, Ullrich JR
Title: Nutritional support in the frail elderly surgical patient
Journal: Surgical Clinics of North America
Year: 1994 Feb
Volume: 74
Number: 1
Pages: 79-92
Notes: Malnutrition
Abstract: Malnutrition is common in the elderly population, particularly residents living in nursing homes. The decrease in nutrient intake associated with aging reduces cellular function and reserve capacity. Refeeding of malnourished elderly patients prior to elective surgeries, or following emergency surgeries, can reduce surgical morbidity and mortality. A large number of elderly patients become unable to maintain their nutritional status by oral feedings. Modern techniques and materials allow the use of the gastrointestinal tract for nutritional support in most of these patients. The ultimate goal for health care in the 1990s is to provide quality life at home. Nutritional support has become an integral component of home services for the elderly.
Keywords: Frail Elderly; Nutrition; Surgical Procedures, Operative; Other Subjects (MeSH): Enteral Nutrition; Nutrition Assessment; Nutrition Disorders--therapy; Nutritional Requirements; Parenteral Nutrition; Limits: Aged; Aged, 80 and over; Human

Author: Ross GW, Abbott RD, Petrovitch H, Masaki KH, Murdaugh C, Trockman C, Curb JD, White LR
Title: Frequency and characteristics of silent dementia among elderly Japanese-American men. The Honolulu-Asia Aging Study.
Journal: Journal of the American Medical Association
Year: 1997 Mar 12
Volume: 277
Number: 10
Pages: 800-805
Notes: Dementia
Abstract: OBJECTIVE: To determine the frequency of unrecognized dementia in a group of men found to have dementia by population survey, and to identify factors associated with the failure of a family informant to recognize significant memory impairment. DESIGN AND SETTING: The Honolulu-Asia Aging Study, a population-based study of dementia among elderly Japanese-American men living on the island of Oahu, Hawaii. Data for this study were from the dementia prevalence survey, 1991-1993. STUDY PARTICIPANTS: A total of 191 noninstitutionalized men with dementia who had a reliable family informant. MAIN OUTCOME MEASURES: Failure of family informants to recognize a problem with thinking or memory in subjects with dementia. RESULTS: A total of 21% of family informants failed to recognize a problem with memory among subjects subsequently found to have dementia. Among subjects with very mild dementia, 52% of family informants failed to recognize a significant memory problem compared with 13% among more severely demented subjects. Of the subjects with dementia whose family informants did recognize a memory problem, 53% failed to receive a medical evaluation for this problem. For all family informants, increasing age, fewer years of education, less severe dementia, fewer behavioral complications, fewer functional disabilities, and better performance on certain tests of memory and language were significantly associated with the family informant's failure to recognize a problem with memory. When the family informants were wives living with husbands, less severe dementia, fewer behavioral complications, fewer functional disabilities, and intact remote memory were associated with unrecognized dementia. CONCLUSIONS: Unrecognized dementia was common in our population, especially among mild cases. Cognitive screening programs for the elderly and public education policies designed to increase awareness of early signs of dementia are needed if interventions for

individuals with potentially treatable dementias are to be implemented.
Keywords: Asian Americans; Dementia--diagnosis; Other Subjects (MeSH): Behavior; Cognition; Dementia--ethnology; Dementia--epidemiology; Dementia--physiopathology; Family; Health Services--utilization; Logistic Models; Memory; Mental Status Schedule; Multivariate Analysis; Neuropsychological Tests; Severity of Illness Index; Hawaii--epidemiology; Japan--ethnology; Limits: Aged; Aged, 80 and over; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Rovner BW, German PS, Brant LJ, Clark R, Burton L, Folstein MF
Title: Depression and mortality in nursing homes
Journal: Journal of the American Medical Association
Year: 1991 Feb 27
Volume: 265
Number: 8
Pages: 993-996
Notes: Depression
Abstract: To determine the prevalence rates of major depressive disorder and of depressive symptoms and their relationship to mortality in nursing homes, research psychiatrists examined 454 consecutive new admissions and followed them up longitudinally for 1 year. Major depressive disorder occurred in 12.6% and 18.1% had depressive symptoms; the majority of cases were unrecognized by nursing home physicians and were untreated. Major depressive disorder, but not depressive symptoms, was a risk factor for mortality over 1 year independent of selected physical health measures and increased the likelihood of death by 59%. Because depression is a prevalent and treatable condition associated with increased mortality, recognition and treatment in nursing homes is imperative.
Keywords: Depressive Disorder--epidemiology; Mortality; Nursing Homes; Other Subjects (MeSH): Activities of Daily Living; Analysis of Variance; Depression--diagnosis; Depression--epidemiology; Depressive Disorder--diagnosis; Nursing Homes--statistics & numerical data; Prevalence; Proportional Hazards Models; Prospective Studies; Risk Factors; Baltimore--epidemiology; Limits: Aged; Female; Human; Male; Middle Age

Author: Rovner BW, German PS, Broadhead J, Morriss RK, Brant LJ, Blaustein J, Folstein MF
Title: The prevalence and management of dementia and other psychiatric disorders in nursing homes
Journal: International Psychogeriatrics
Year: 1990 Spring
Volume: 2
Number: 1
Pages: 13-24
Notes: Dementia
Abstract: The prevalence of psychiatric disorders among new admissions to nursing homes is unknown. Such data are needed to estimate the psychiatric needs of this population. We report the prevalence of specific psychiatric disorders in 454 consecutive new nursing home admissions who were evaluated by psychiatrists and diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders, third edition, revised. Eighty percent had a psychiatric disorder. The commonest were dementia syndromes (67.4%) and affective disorders (10%). Also, 40% of demented patients had additional psychiatric syndromes such as delusions or depression, and these patients constituted a distinct subgroup that predicted frequent use of restraints and neuroleptics, and the greatest consumption of nursing time. These data demonstrate that the majority of nursing home residents have psychiatric disorders on admission, and that their management is often quite restrictive. Research is now needed to determine the best methods of treatment for nursing home patients with mental disorders.
Keywords: Delirium, Dementia, Amnestic, Cognitive; Disorders--epidemiology; Dementia--epidemiology; Depressive Disorder--epidemiology; Homes for the Aged; Nursing Homes; Other Subjects (MeSH): Alzheimer Disease--diagnosis; Alzheimer Disease--epidemiology; Alzheimer Disease--psychology; Cross-Sectional Studies; Delirium--diagnosis; Delirium--epidemiology; Delirium--psychology; Delirium, Dementia, Amnestic, Cognitive Disorders--diagnosis; Delirium,

Dementia, Amnestic, Cognitive Disorders--psychology; Delusions--diagnosis; Delusions--epidemiology; Delusions--psychology; Dementia--diagnosis; Dementia--psychology; Dementia, Multi-Infarct--diagnosis; Dementia, Multi-Infarct--epidemiology; Dementia, Multi-Infarct--psychology; Depressive Disorder--diagnosis; Depressive Disorder--psychology; Incidence; Neuropsychological Tests; Baltimore--epidemiology; Limits: Aged; Aged, 80 and over; Human; Support, U.S. Gov't, P.H.S.

Author: Roy R
Title: A psychosocial perspective on chronic pain and depression in the elderly
Journal: Social Work in Health Care
Year: 1986 Winter
Volume: 12
Number: 2
Pages: 27-36
Notes: Pain Management
Abstract: Chronic pain and depression often coexist in elderly individuals. This paper explores, from a clinical perspective, the antecedents for depressive symptoms in older chronic pain patients. A case is made for active social work intervention with elderly patients who manifest this complex syndrome of chronic pain.
Keywords: Depressive Disorder--psychology; Pain--psychology; Other Subjects (MeSH): Antidepressive Agents--therapeutic use; Chronic Disease; Depressive Disorder--complications; Depressive Disorder--therapy; Grief; Pain--complications; Pain--therapy; Psychotherapy; Role; Sick Role; Social Isolation; Social Work; Limits: Aged; Case Report; Female; Human; Male

Author: Rozzini R, Ferrucci L, Losonczy K, Havlik RJ, Guralnik JM
Title: Protective effect of chronic NSAID use on cognitive decline in older persons
Journal: Journal of the American Geriatrics Society
Year: 1996 Sep
Volume: 44
Number: 9
Pages: 1025-1029
Notes: Appropriate Medication Use
Abstract: OBJECTIVE: To verify whether chronic use of nonsteroidal anti-inflammatory drugs (NSAIDs) has a protective effect against cognitive decline in older persons. DESIGN: Prospective study with a 3-year observation period. SETTING: Three communities of the Established Populations for Epidemiologic Studies of the Elderly (EPESE). SUBJECTS: A population-based sample of 7671 subjects who received an in-person interview at the sixth annual follow-up. Persons with documented NSAID use at the time of the interview and 3 years before were considered chronic users (21%), while all other persons were considered as nonusers. MAIN OUTCOME MEASURE: Change over time in cognitive function assessed as the number of correct answers to a 9-item version of the Short Portable Mental Status Questionnaire (SPMSQ). RESULTS: For every level of SPMSQ score measured at the beginning of the observation period, the mean SPMSQ score after 3 years was higher in chronic NSAID users than in nonusers. Cognitive function at the end of the observation period was significantly higher in chronic NSAID users than in controls, adjusting for initial SPMSQ score and potential confounders. Older age, female gender, education, and history of cerebrovascular disease were also independent predictors of lower SPMSQ score. In the multivariate analysis, the magnitude of the protective effect estimated for NSAID use was comparable to a difference in age of 3.5 years. The percentage of persons who started above a specific SPMSQ score cut-point and deteriorated below that cut-point over a 3-year period was significantly lower in chronic NSAID users than in nonusers (30.2% vs 34.3%, P = .03, for decline below SPMSQ score of 8 and 12.3% vs 14.4% for decline below SPMSQ score of 6, P = .04). After controlling for potential confounders, the relative risk of cognitive declining in chronic NSAID users compared with nonusers was 0.82 (95% Confidence Interval: 0.69-0.98) for a decline below a score of 8, and 0.80 (95% CI: 0.66-0.98) for a decline below a score of 6. CONCLUSIONS: These results support the association between NSAID use and reduction in cognitive decline in older

persons. Ultimately, randomized controlled trials must be done to prove a beneficial effect definitively.

Keywords: Anti-Inflammatory Agents, Non-Steroidal--therapeutic use; Cognition Disorders--prevention & control; Other Subjects (MeSH): Cognition Disorders--diagnosis; Confounding Factors (Epidemiology); Mental Status Schedule; Multivariate Analysis; Population Surveillance; Prospective Studies; Risk Factors; Severity of Illness Index; Time Factors; Boston; Connecticut; Iowa; Limits: Aged; Female; Human; Male

Author: Rubenstein LZ, Josephson KR, Robbins AS
Title: Falls in the nursing home
Journal: Annals of Internal Medicine
Year: 1994 Sep 15
Volume: 121
Number: 6
Pages: 442-451
Notes: Falls and Mobility Problems; Osteoporosis
Abstract: OBJECTIVE: To review the epidemiology and causes of falls and fall-related injuries in nursing homes and to provide clinicians with a structured framework to evaluate and treat nursing home residents at risk for falls. DATA SOURCES: All large-scale published studies documenting incidence, causes, risk factors, and preventive strategies for falls in nursing homes were reviewed. RESULTS: The mean incidence of falls in nursing homes is 1.5 falls per bed per year (range, 0.2 to 3.6 falls). The most common precipitating causes include gait and balance disorders, weakness, dizziness, environmental hazards, confusion, visual impairment, and postural hypotension. The most important underlying risk factors for falls and injuries include some of these same items and others, such as lower-extremity weakness, gait and balance instability, poor vision, cognitive and functional impairment, and sedating and psychoactive medications. Many strategies for the prevention of falls have been tried, with mixed success. The most successful consider the multifactorial causes of falls and include interventions to improve strength and functional status, reduce environmental hazards, and allow staff to identify and monitor high-risk residents. Strategies that reduce mobility through use of restraints have been shown to be more harmful than beneficial and should be avoided. CONCLUSIONS: A focused history and physical examination after a fall can usually determine both the immediate underlying causes of the fall and contributing risk factors. In addition, regular evaluations in the nursing home can help identify patients at high risk who can then be targeted for specific treatment and prevention strategies.
Keywords: Accidental Falls--statistics & numerical data; Homes for the Aged--statistics & numerical data; Nursing Homes--statistics & numerical data; Other Subjects (MeSH): Accidental Falls--prevention & control; Architectural Accessibility--standards; Frail Elderly; Nursing Care; Risk Factors; Risk Management; United States--epidemiology; Limits: Aged; Aged, 80 and over; Human

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Author: Rubin SM, Strull WM, Fialkow MF, Weiss SJ, Lo B
Title: Increasing the completion of the durable power of attorney for health care
Journal: Journal of the American Medical Association
Year: 1994 Jan 19
Volume: 271
Number: 3
Pages: 209-212
Notes: End of Life
Abstract: OBJECTIVE--Wider use of written advance directives may prevent many ethical dilemmas about life-sustaining interventions for patients who have lost decision-making capacity. We investigated whether a simple educational intervention increased patient completion of the durable power of attorney for health care. DESIGN--A randomized, controlled trial. SETTING--A health maintenance organization. SUBJECTS--All patients aged 65 years and older and discharged from a hospital between January 1991 and May 1991 (n = 1101) were randomized to either an intervention group or a control group. INTERVENTION--An educational pamphlet

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Notice

on the durable power of attorney for health care and a durable power of attorney for health care form were mailed to all patients in the intervention group. The control group received conventional care only. MAIN OUTCOME MEASURE--Completion of the durable power of attorney for health care form. RESULTS--There were no significant baseline differences between the intervention group and the control group. Following our intervention, 18.5% of the subjects in the experimental group completed a durable power of attorney for health care form, compared with 0.4% of the control group (P < .0001). CONCLUSIONS--A simple educational intervention significantly increased the completion of the durable power of attorney for health care. Our findings should stimulate further efforts to empower patients to make informed decisions about their health care.

Keywords: Health Maintenance Organizations--organization & administration; Living Wills--statistics & numerical data; Patient Education; Other Subjects (MeSH): Advance Directives--statistics & numerical data; Forms and Records Control; Pamphlets; Patient Discharge; San Francisco; Limits: Aged; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Ryan AS, Craig LD, Finn SC
Title: Nutrient intakes and dietary patterns of older Americans: a national study
Journal: Journal of Gerontology
Year: 1992 Sep
Volume: 47
Number: 5
Pages: M145-M150
Notes: Malnutrition
Abstract: To assess the dietary status of older Americans, a national household survey of food consumption practices of individuals 65 years of age and older was conducted in May-August, 1990. The design and methodology of the survey were modeled after those of the USDA's Continuing Survey of Food Intakes by Individuals (CSFII). Dietary information for 474 individuals (65 to 98 years of age) in 355 households was collected by interview (24-hour dietary recall). Analyzed indicators of dietary quality were energy (calorie) and nutrient intake, food group intake and frequency, and number of meals skipped. Results indicated that substantial percentages of those surveyed had inadequate intakes of energy and nutrients. Over 40% of men had intakes of vitamins A and E, calcium, and zinc below two-thirds the RDA. For women, over 40% had intakes of vitamin E, calcium, and zinc that were below two-thirds the RDA. Additionally, over 20% of older men and women skipped lunch. These data indicate that a large proportion of noninstitutionalized elderly Americans consume diets that fail to meet dietary standards.
Keywords: Food Habits; Nutrition; Other Subjects (MeSH): Dietary Fats--administration & dosage; Dietary Proteins--administration & dosage; Eating; Energy Intake; Food; Food Preferences; Minerals--administration & dosage; Nutrition Surveys; Sex Factors; Vitamins--administration & dosage; United States; Limits: Aged; Aged, 80 and over; Female; Human; Male

Author: Sachs GA, Stocking CB, Miles SH
Title: Empowerment of the older patient? A randomized, controlled trial to increase discussion and use of advance directives
Journal: Journal of the American Geriatrics Society
Year: 1992 Mar
Volume: 40
Number: 3
Pages: 269-273
Notes: End of Life
Abstract: OBJECTIVE: To see if an educational intervention directed at older outpatients would lead to increased use or discussion of advance directives and to characterize patients' reasons for not obtaining advance directives. DESIGN: Randomized, controlled trial of an educational intervention versus usual care. SETTING: Outpatient geriatrics clinic of a university hospital. PATIENTS: One hundred and thirty-one non-demented patients over the age of 65 who did not have an advance directive documented in their record at the start of the study. Forty-eight patients were in the trial arm and 83 in the control. MAIN OUTCOME MEASURES: All patients

had their charts reexamined 6 months after enrollment to look for the presence of a living will, a durable power of attorney for health care, or a physician's note describing a discussion of advance directives. Trial patients were also re-interviewed to examine their reasons for not executing an advance directive. MAIN RESULTS: Six months after the intervention, only seven of the 48 trial subjects (15%) had an advance directive or note describing discussion of advance directives in their charts compared to eight of the 83 controls (10%) (P greater than 0.05). When asked to give reasons for not obtaining an advance directive, many patients' responses pointed to procrastination as a significant barrier. CONCLUSIONS: Promoting advance directive use is a complicated task. Barriers other than information and access to documents appear to be involved and need to be addressed in future efforts.

Keywords: Advance Directives; Medical Records--standards; Patient Education--standards; Power (Psychology); Other Subjects (MeSH): Communication; Hospitals, University; Outpatient Clinics, Hospital; Patient Participation; Chicago; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Salive ME, Guralnik J, Christen W, Glynn RJ, Colsher P, Ostfeld AM
Title: Functional blindness and visual impairment in older adults from three communities
Journal: Ophthalmology
Year: 1992 Dec
Volume: 99
Number: 12
Pages: 1840-1847
Notes: Vision Care
Abstract: PURPOSE: The purpose of this study is to examine the association of sociodemographic factors with functional blindness and visual impairment in an aged population. METHODS: Three population-based cohorts (East Boston, MA; New Haven, CT; and Iowa and Washington Counties, IA) of persons aged 71 years and older were screened for bilateral functional near and distant vision during an in-home interview in 1988. RESULTS: Screening was completed by 5335 participants. The prevalence of functional blindness increased with age, from 1% at age 71 to 74 years to 17% in those 90 years of age and older. Functional visual impairment increased from 7% at age 71 to 74 years to 39% in those 90 years of age and older. In multivariate analyses, residence in a nursing home, older age, glaucoma, insulin-requiring diabetes at baseline, East Boston site, history of cataract, and lower 1982 income were independent and significantly associated with both functional blindness and visual impairment. Age and nursing home residence were significantly ($P < 0.05$) more strongly associated with blindness (odds ratios 4.8 and 6.1, respectively) than they were with visual impairment. CONCLUSION: Functional blindness and visual impairment are quite prevalent among the oldest old and the institutionalized. The number of affected individuals will increase as the population ages and life expectancy increases. Although visual problems are associated with aging, nursing home residence, health problems, and socioeconomic conditions, they may be readily remediable and may lead to immediate improvements in quality of life.
Keywords: Blindness--etiology; Vision Disorders--etiology; Other Subjects (MeSH): Blindness--diagnosis; Blindness--epidemiology; Cross-Sectional Studies; Logistic Models; Odds Ratio; Prevalence; Socioeconomic Factors; Vision Disorders--diagnosis; Vision Disorders--epidemiology; Vision Screening; Visual Acuity; Boston--epidemiology; Connecticut--epidemiology; Iowa--epidemiology; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Salive ME, Guralnik J, Glynn RJ, Christen W, Wallace RB, Ostfeld AM
Title: Association of visual impairment with mobility and physical function
Journal: Journal of the American Geriatrics Society
Year: 1994 Mar
Volume: 42
Number: 3
Pages: 287-292
Notes: Vision Care
Abstract: OBJECTIVE: To examine the association of distant vision and physical function in the

population of older adults. DESIGN: Cross-sectional and cohort study. PARTICIPANTS: 5143 older residents of three communities (Established Populations for the Epidemiologic Studies of the Elderly) who were interviewed in 1988-89, including residents of two communities who were re-interviewed 15 months later (n = 3133, 97% of those eligible). MEASURES: Visual acuity screening, self-reported activities of daily living and mobility, and objective physical performance measures of balance, walking, and rising from a chair. RESULTS: Limitations in mobility, activities of daily living, and physical performance were associated with worse visual function. In prospective analyses controlling for potential confounders, participants with severe visual impairment had 3-fold higher odds of incident mobility and activity of daily living limitations than those with acuity of 20/40 or better ($P < 0.001$). In prospective analyses investigating the relationship of vision with improvement in function, those with poor vision were about half as likely to improve as those with better acuity, but this relationship was only statistically significant for improvement in mobility limitations. CONCLUSIONS: Distant visual function appears to play an important role in physical function, particularly for mobility. An intervention to improve vision in at-risk elders might preserve function and prevent disability; this warrants further investigation.

Keywords: Activities of Daily Living; Locomotion; Vision Disorders; Other Subjects (MeSH): Cohort Studies; Cross-Sectional Studies; Longitudinal Studies; Risk Factors; Vision Disorders--diagnosis; Vision Tests; Visual Acuity; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Singer PA, Martin DK, Kelner M
Title: Quality end-of-life care: patients' perspectives
Journal: Journal of the American Medical Society
Year: 1999 Jan 13
Volume: 281
Number: 2
Pages: 163-168
Notes: End of Life
Abstract: CONTEXT: Quality end-of-life care is increasingly recognized as an ethical obligation of health care providers, both clinicians and organizations. However, this concept has not been examined from the perspective of patients. OBJECTIVE: To identify and describe elements of quality end-of-life care from the patient's perspective. DESIGN: Qualitative study using in-depth, open-ended, face-to-face interviews and content analysis. SETTING: Toronto, Ontario. PARTICIPANTS: A total of 126 participants from 3 patient groups: dialysis patients (n = 48), people with human immunodeficiency virus infection (n = 40), and residents of a long-term care facility (n = 38). OUTCOME MEASURES: Participants' views on end-of-life issues. RESULTS: Participants identified 5 domains of quality end-of-life care: receiving adequate pain and symptom management, avoiding inappropriate prolongation of dying, achieving a sense of control, relieving burden, and strengthening relationships with loved ones. CONCLUSION: These domains, which characterize patients' perspectives on end-of-life care, can serve as focal points for improving the quality of end-of-life care.
Keywords: Patient Satisfaction; Quality of Life; Terminal Care; Terminally Ill--psychology; Other Subjects (MeSH): Communication; Decision Making; Hemodialysis; HIV Infections--therapy; Kidney Failure, Chronic--therapy; Long-Term Care; Pain--therapy; Patient Advocacy; Limits: Adult; Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Siu AL, Kravitz RL, Keeler E, Hemmerling K, Kington R, Davis JW, Mitchell A, Burton TM, Morgenstern H, Beers MH, Reuben DB
Title: Postdischarge geriatric assessment of hospitalized frail elderly patients
Journal: Archives of Internal Medicine
Year: 1996 Jan 8
Volume: 156
Number: 1
Pages: 76-81
Notes: Screening and Prevention
Abstract: BACKGROUND: The diffusion of comprehensive geriatric assessment services has been

rather limited in North America partly because of reimbursement and organizational constraints. OBJECTIVE: To evaluate the impact of a comprehensive geriatric assessment intervention for frail older patients that is started before hospital discharge and is continued at home. METHODS: Patients older than 65 years were selected who had either unstable medical problems, recent functional limitations, or potentially reversible geriatric clinical problems. Patients (n = 354) were randomly assigned to either the intervention group or a control group. Information on survival, readmissions, nursing home placement, medication use, and health status was collected at 30 and 60 days after hospital discharge. RESULTS: No differences were observed between the two treatment groups in survival, hospital readmission, or nursing home placement by 60 days. After adjustment for baseline characteristics, no significant differences were observed between the two groups on measures of physical functioning, social functioning, role limitations, health perceptions, pain, mental health, energy and/or fatigue, health change, or overall well-being. CONCLUSIONS: Although efficacy has been demonstrated for some forms of comprehensive geriatric assessment, the types of services that are easier to establish (inpatient consultation services and ambulatory assessment) have not been shown to improve outcomes. Our results indicate that outcomes are unaffected by a limited form of comprehensive geriatric assessment begun in the hospital and completed at home. Further efforts are needed to develop and to evaluate realistic approaches to comprehensive geriatric assessment.

Keywords: Frail Elderly; Geriatric Assessment; Other Subjects (MeSH): Patient Discharge; Limits: Aged; Human; Support, U.S. Gov't, P.H.S.

Author: Smythe CM
Title: Some lessons learned in the care of the elderly
Journal: Epilepsia
Year: 1997
Volume: 38
Number: 4 Suppl
Pages: S50-S54
Notes: Function
Abstract: This article is designed to acquaint physicians not trained in geriatrics with some precepts concerning the care of the elderly. It presents a summary of the experience in the care of over 2,000 outpatients over the age of 65 who were seen at a community hospital geriatric evaluation unit and resource center. The findings reaffirmed the importance of concentrating on the preservation and restoration of function in the care of the frail elderly. Although there are no clinical skills unique to geriatrics, but the approach to the gathering of clinical data in people with multiple and overlapping problems and disabilities must be structured differently. There is less emphasis on precise diagnosis, much less emphasis on the concept of cure, and more emphasis on structuring a medical/social response to the dominant problem or problems.
Keywords: Geriatrics--standards; Health Services for the Aged; Other Subjects (MeSH): Ambulatory Care; Caregivers--psychology; Frail Elderly; Geriatric Assessment; Geriatrics--economics; Geriatrics--methods; Health Services for the Aged--economics; Health Services for the Aged--organization & administration; Health Services for the Aged--standards; Medical History Taking; Medicare; Physical Examination; United States; Limits: Aged; Aged, 80 and over; Human

Author: Sommer A, Tielsch JM, Katz J, Quigley HA, Gottsch JD, Javitt JC, Martone JF, Royall RM, Witt KA, Ezrine S
Title: Racial differences in the cause-specific prevalence of blindness in east Baltimore
Journal: New England Journal of Medicine
Year: 1991 Nov 14
Volume: 325
Number: 20
Pages: 1412-1417
Notes: Vision Care
Abstract: BACKGROUND. Bilateral blindness unrelated to simple refractive error is twice as prevalent among blacks as among whites, although the difference narrows among the elderly. The

reasons for this race- and age-related pattern are uncertain. METHODS AND RESULTS. A randomly selected, stratified, multistage cluster sample of 2395 blacks and 2913 whites 40 years of age and older in East Baltimore underwent detailed ophthalmic examinations by a single team. We identified 64 subjects who were blind in both eyes. The leading causes of blindness were unoperated senile cataract (accounting for blindness in 27 of the total of 128 eyes), primary open-angle glaucoma (17 eyes), and age-related macular degeneration (16 eyes). Together, these three disorders accounted for 47 percent of all blindness in this sample. Unoperated cataract accounted for 27 percent of all blindness among blacks, among whom it was four times more common than among whites; whites were almost 50 percent more likely than blacks to have undergone cataract extraction before the age of 80 (P less than 0.002). Primary open-angle glaucoma accounted for 19 percent of all blindness among blacks; it was six times as frequent among blacks as among whites and began 10 years earlier, on average. By contrast, age-related macular degeneration resulting in blindness was limited to whites, among whom it was the leading cause of blindness (prevalence, 2.7 per 1000; 95 percent confidence interval, 1.2 to 5.4); it affected 3 percent of all white subjects 80 years of age or older. CONCLUSIONS. The pattern of blindness in urban Baltimore appears to be different among blacks and whites. Whites are far more likely to have age-related macular degeneration, and blacks to have primary open-angle glaucoma. The high rate of unoperated cataracts among younger blacks and among elderly subjects of both races suggests that health services are underused. Half of all blindness in this urban population is probably preventable or reversible.

Keywords: Blindness--ethnology; Other Subjects (MeSH): Age Factors; Blacks--statistics & numerical data; Blindness--etiology; Cataract--complications; Cluster Analysis; Ethnic Groups; Glaucoma, Open-Angle--complications; Health Services--utilization; Macular Degeneration--complications; Prevalence; Racial Stocks; Urban Population; Whites--statistics & numerical data; Baltimore; Limits: Adult; Aged; Aged, 80 and over; Human; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Soumerai SB, McLaughlin TJ, Spiegelman D, Hertzmark E, Thibault G, Goldman L
Title: Adverse outcomes of underuse of beta-blockers in elderly survivors of acute myocardial infarction
Journal: Journal of the American Medical Association
Year: 1997 Jan 8
Volume: 277
Number: 2
Pages: 115-121
Notes: Ischemic Heart Disease
Abstract: OBJECTIVES: To study determinants and adverse outcomes (mortality and rehospitalization) of beta-blocker underuse in elderly patients with myocardial infarction; and whether the relative risks (RRs) of survival associated with beta-blocker use were comparable to those reported in the large randomized controlled trials (RCTs). SETTING: New Jersey Medicare population. DESIGN: Retrospective cohort design using linked Medicare and drug claims data from 1987 to 1992. PATIENTS: Statewide cohort of 5332 elderly 30-day acute myocardial infarction (AMI) survivors with prescription drug coverage, of whom 3737 were eligible for beta-blockers. MAIN OUTCOME MEASURES: beta-Blocker and calcium channel blocker use in the first 90 days after discharge and mortality rates and cardiac hospital readmissions over the 2-year period after discharge, controlling for sociodemographic and baseline risk variables. RESULTS: Only 21% of eligible patients received beta-blocker therapy; this rate remained unchanged from 1987 to 1991. Patients were almost 3 times more likely to receive a new prescription for a calcium channel blocker than for a new beta-blocker after their AMIs. Advanced age and calcium channel blocker use predicted underuse of beta-blockers. Controlling for other predictors of survival, the mortality rate among beta-blocker recipients was 43% less than that for nonrecipients (RR=0.57; 95% confidence interval [CI], 0.47-0.69). Effects on mortality were substantial in all age strata (65-74 years, 75-84 years, and > or = 85 years) and consistent with the results for elderly subgroups of 2 large RCTs. beta-Blocker recipients were rehospitalized 22% less often than nonrecipients (RR=0.78; 95% CI, 0.67-0.90). Use of a calcium channel blocker instead of a beta-blocker was associated with a doubled risk of death (RR= 1.98; 95% CI, 1.44-2.72), not because calcium channel blockers had a demonstrable adverse effect, but because they were substitutes for beta-blockers. CONCLUSIONS: beta-Blockers are

underused in elderly AMI survivors, leading to measurable adverse outcomes. These data suggest that the survival benefits of beta-blockade after an AMI may extend to eligible patients older than 75 years, a group that has been excluded from RCTs.

Keywords: Adrenergic beta-Antagonists--therapeutic use; Myocardial Infarction--drug therapy; Myocardial Infarction--mortality; Other Subjects (MeSH): Calcium Channel Blockers--therapeutic use; Cohort Studies; Drug Utilization; Hospitalization--statistics & numerical data; Myocardial Infarction--prevention & control; Proportional Hazards Models; Randomized Controlled Trials; Retrospective Studies; Survival Analysis; Survivors; Treatment Outcome; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Spoelhof GD, Ide K
Title: Pressure ulcers in nursing home patients
Journal: American Family Physician
Year: 1993 Apr
Volume: 47
Number: 5
Pages: 1207-1215
Notes: Pressure Ulcers
Abstract: Pressure, moisture, shear forces and friction lead to skin ulcer formation. Nursing home and home-bound patients with restricted mobility, poor nutrition, incontinence and chronic conditions such as anemia, diabetes and dementia are at risk for ulcer formation. Bedridden patients should be turned from side to side at 30-degree angles at least every two hours. Mattress and chair cushions, splints and cradle boots may reduce pressure. Good hygiene and barrier ointments, condom catheters, absorptive products and scheduled toileting for incontinence may control moisture. Calorie and protein supplements, feeding assistance and serial weight measurements are essential in the management of malnourished patients. Treatment should be based on the stage of the ulcer and the presence of conditions such as necrotic debris, infection and drainage. Saline wet-to-dry dressings and enzymatic and surgical debridement are necessary to remove necrotic tissue. Saline-soaked gauze, hydrogel preparations and occlusive dressings provide the physiologic environment for fibroblasts to grow and form granulation tissue. Patients with sepsis may require hospital admission for both further evaluation and systemic antibiotic therapy.
Keywords: Decubitus Ulcer--prevention & control; Decubitus Ulcer--therapy; Nursing Homes--standards; Other Subjects (MeSH): Decubitus Ulcer--physiopathology; Homes for the Aged--standards; Long-Term Care--standards; Limits: Aged; Aged, 80 and over; Case Report; Female; Human

Author: Stein WM Ferrell BA
Title: Pain in the nursing home
Journal: Clinics in Geriatric Medicine
Year: 1996 Aug
Volume: 12
Number: 3
Pages: 601-613
Notes: Pain Management
Abstract: The treatment of pain in the nursing home setting is a unique and challenging problem. Studies of the prevalence of pain in this setting have been limited, and many of the assessment tools used routinely with younger adults have not been validated in this population. The application of pharmacologic interventions is more difficult because of the higher incidence of side effects in the elderly, as well as the limited resources and logistical issues often encountered in the nursing home. This article explores these issues and offers suggestions for the appropriate management of pain in the long-term care resident.
Keywords: Homes for the Aged; Nursing Homes; Pain--therapy; Other Subjects (MeSH): Homes for the Aged--trends; Nursing Homes--trends; Pain--etiology; Pain--physiopathology; Limits: Aged; Human

Author: Stuck AE, Beers MH, Steiner A, Aronow HU, Rubenstein LZ, Beck JC

Title: Inappropriate medication use in community-residing older persons

Journal: Archives of Internal Medicine

Year: 1994 Oct 10

Volume: 154

Number: 19

Pages: 2195-2200

Notes: Falls and Mobility Problems

Abstract: BACKGROUND: Elderly patients taking inappropriate drugs are at increased risk for adverse outcomes. We investigated the prevalence of inappropriate drug use and its predisposing factors in community-residing older persons. METHODS: We conducted in-home interviews with 414 subjects aged 75 years and older living in the community of Santa Monica, Calif. Inappropriate medication use was evaluated using explicit criteria developed through a modified Delphi consensus process. These criteria identified drugs that should generally be avoided in elderly community-residing subjects regardless of dosage, duration of therapy, or clinical circumstances. RESULTS: Based on these conservative criteria, 14.0% of the subjects were using at least one inappropriate drug. The most common examples were long-acting benzodiazepines, persantine, amitriptyline, and chlorpropamide. Subjects using three or more prescription drugs, compared with one or two, were more likely to be taking an inappropriate medication (odds ratio, 3.9; 95% confidence interval, 1.9 to 7.9). Furthermore, subjects with depressive symptoms had a higher risk of receiving inappropriate medications than nondepressive subjects (odds ratio, 2.2; 95% confidence interval, 1.1 to 4.1). CONCLUSIONS: Inappropriate drug use is a common problem in community-residing older persons. The risk of inappropriate drug use is increased in patients taking multiple medications and in patients with depressive symptoms.

Keywords: Self Administration--statistics & numerical data; Self Medication--statistics & numerical data; Other Subjects (MeSH): Age Factors; Causality; Confidence Intervals; Data Collection; Delphi Technique; Depressive Disorder--drug therapy; Depressive Disorder--psychology; Drug Therapy, Combination; Drugs, Non-Prescription--therapeutic use; Odds Ratio; Prescriptions, Drug--statistics & numerical data; Prevalence; Treatment Outcome; California; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't

Author: Stuck AE, Siu AL, Wieland GD, Adams J, Rubenstein LZ

Title: Comprehensive geriatric assessment: a meta-analysis of controlled trials

Journal: Lancet

Year: 1993 Oct 23

Volume: 342

Number: 8878

Pages: 1032-1036

Notes: Screening and Prevention

Abstract: There is disagreement on the usefulness of comprehensive geriatric assessment (CGA) due to conflicting results from individual trials. We did a meta-analysis on 28 controlled trials comprising 4959 subjects allocated to one of five CGA types and 4912 controls. Published data were supplemented with reanalysed data provided by the original investigators. We calculated combined odds ratios of important outcomes by pooling data from individual trials with multivariate logistic regression. Combined odds ratio (95% confidence interval) of living at home at follow-up was 1.68 (1.17-2.41) for geriatric evaluation and management units, 1.49 (1.12-1.98) for hospital-home assessment services, and 1.20 (1.05-1.37) for home assessment services. Covariate analysis showed that programmes with control over medical recommendations and extended ambulatory follow-up were more likely to be effective. Our analysis suggests that CGA programmes linking geriatric evaluation with strong long-term management are effective for improving survival and function in older persons.

Keywords: Geriatric Assessment; Other Subjects (MeSH): Activities of Daily Living; Aftercare; Clinical Trials; Cognition; Follow-Up Studies; Geriatrics; Home Care Services; Hospital Units; Intervention Studies; Mortality; Patient Admission; Patient Readmission; Referral and Consultation; Limits: Aged; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.

Volume: 45
Number: 4
Pages: 500-507
Notes: End of Life
Abstract: OBJECTIVE: To assess the effectiveness of written advance directives (ADs) in the care of seriously ill, hospitalized patients. In particular, to conduct an assessment after ADs were promoted by the Patient Self-Determination Act (PSDA) and enhanced by the effort to improve decision-making in the Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments (SUPPORT), focusing upon the impact of ADs on decision-making about resuscitation. DESIGN: Observational cohort study conducted for 2 years before (PRE) and for 2 years after (POST) the PSDA, with a randomized, controlled trial of an additional intervention to improve decision-making after PSDA (POST+SUPPORT). SETTING: Five teaching hospitals in the United States. PATIENTS: A total of 9105 seriously ill patients treated in five teaching hospitals. INTERVENTIONS: The PSDA mandated patient education about ADs at hospital entry and documentation of ADs in the medical record. The SUPPORT intervention, in addition, provided a nurse to facilitate communication among patients, surrogates, and physicians about preferences for and outcomes of treatment alternatives and, when clinically appropriate, to encourage completion and utilization of ADs. MEASUREMENTS: Interviews were conducted with patients, surrogates, and attending physicians about awareness, completion, and impact of ADs. Medical records were reviewed for discussion about preferences concerning resuscitation, timing and writing of "Do Not Resuscitate" (DNR) orders, evidence of ADs, and the use or forgoing of resuscitation at the time of death. RESULTS: In the three cohorts, PRE, POST, and POST+SUPPORT, average age was 63. One-quarter of patients died during the initial hospitalization, one-half were dead within 6 months, and one-half were unconscious for their last 3 days. Before the PSDA (PRE), 62% were familiar with a living will, and 21% had an AD. These rates were similar for the POST and POST+SUPPORT cohorts. Just 36 (6%) of these directives were mentioned in the medical records for PRE, but a stable 35% were documented for POST, and POST+SUPPORT had an increasing rate averaging 78% ($P < .001$). As previously reported for PRE patients, the POST patients with and without ADs had no significant differences in the rates of medical record documentation of discussions about resuscitation (33% vs 38%, POST without AD vs POST with AD), DNR orders among those who wanted to forgo resuscitation (54% vs 58%), and attempted resuscitations at death (17% vs 9%). The POST+SUPPORT patients had similar results, with no evidence that the intervention enhanced the effect of ADs on these three measures of resuscitation decision-making. Patients with ADs more often reported that preferences about resuscitation were discussed with a physician (e.g., for POST patients, 30% for those with no AD and 43% for those with an AD, $P < .05$). Only 12% of patients with ADs had talked with a physician when completing the AD. Only 42% reported ever having discussed the AD with their physician. By the second study week, only one in four physicians was aware of patients' ADs. CONCLUSIONS: In these seriously ill patients, ADs did not substantially enhance physician-patient communication or decision-making about resuscitation. This lack of effect was not altered by the PSDA or by the enhanced efforts in SUPPORT, although these interventions each substantially increased documentation of existing ADs. Current practice patterns indicate that increasing the frequency of ADs is unlikely to be a substantial element in improving the care of seriously ill patients. Future work to improve decision-making should focus upon improving the current pattern of practice through better communication and more comprehensive advance care planning.
Keywords: Advance Directives; Critical Illness; Hospitalization; Patient Participation; Other Subjects (MeSH): Advance Directives--legislation & jurisprudence; Cohort Studies; Communication; Decision Making; Medical Records; Patient Education--legislation & jurisprudence; Patient Participation--legislation & jurisprudence; Physician-Patient Relations; Resuscitation; United States; Limits: Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Teno JM, Licks S, Lynn J, Wenger N, Connors AF Jr., Phillips RS, O'Connor MA, Murphy DP, Fulkerson WJ, Desbiens N, Knaus WA
Title: Do advance directives provide instructions that direct care? SUPPORT Investigators. Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatment

Journal: Journal of the American Geriatrics Society
Year: 1997 Apr
Volume: 45
Number: 4
Pages: 508-512
Notes: End of Life
Abstract: OBJECTIVE: To evaluate whether the lack of effect of advance directives (ADs) on decision-making in SUPPORT might arise, in part, from the content of the actual documents. DESIGN: Advance directives placed in the medical records were abstracted for date of completion and content of additional written instructions. We examined directives with instructions to forgo life-sustaining treatment in the current state of health to determine whether care given was consistent with preferences noted in those directives. SETTINGS: Five teaching hospitals in the United States. PATIENTS: A total of 4804 patients with at least one of nine serious illnesses were admitted to five teaching hospitals in the 2 years following implementation of the Patient Self-Determination Act. Patients were part of a randomized controlled trial to improve decision-making and outcomes. RESULTS: From the medical records of 4804 patients, a total of 688 directives were collected from 569 patients. The majority of these directives (66%) were durable powers of attorney; in addition, 31% were standard living wills or other forms of written instructions (3%). Only 90 documents (13%) provided additional instructions for medical care beyond naming a proxy or stating the preferences of a standard living will. Only 36 contained specific instructions about the use of life-sustaining medical treatment, and only 22 of these directed forgoing life-sustaining treatment in the patient's current situation. For these, the treatment course was consistent with the instruction for nine patients. In two cases, patients may have changed an inconsistent directive after discussion with hospital staff. CONCLUSION: Advance directives placed in the medical records of seriously ill patients often did not guide medical decision-making beyond naming a healthcare proxy or documenting general preferences in a standard living will format. Even when specific instructions were present, care was potentially inconsistent in half of the cases.
Keywords: Advance Directives; Other Subjects (MeSH): Decision Making; Hospitals, Teaching; Life Support Care; Living Wills; Limits: Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Thapa PB, Gideon P, Cost TW, Milam AB, Ray WA
Title: Antidepressants and the risk of falls among nursing home residents
Journal: New England Journal of Medicine
Year: 1998 Sep 24
Volume: 339
Number: 13
Pages: 875-882
Notes: Falls and Mobility Problems
Abstract: BACKGROUND: In nursing home residents, the use of tricyclic and other heterocyclic antidepressants is associated with an increased risk of falls. The newer selective serotonin-reuptake-inhibitor antidepressants are largely free of the side effects of the tricyclic agents thought to cause falls and so have been hypothesized to be safer for those at high risk for falls. METHODS: We retrospectively identified an inception cohort of 2428 nursing home residents in Tennessee who were new users of tricyclic antidepressants (665 subjects), selective serotonin-reuptake inhibitors (612 subjects), or trazodone (304 subjects) or nonusers of antidepressants (847 subjects). We ascertained the number of falls during therapy and during a similar follow-up period for nonusers, then calculated the rate ratios for falls with adjustments for an extensive set of potential confounding factors. RESULTS: The new users of each type of antidepressant had higher rates of falls than the nonusers, with adjusted rate ratios of 2.0 (95 percent confidence interval, 1.8 to 2.2) for tricyclic antidepressants, 1.8 (1.6 to 2.0) for selective serotonin-reuptake inhibitors, and 1.2 (1.0 to 1.4) for trazodone. The rate ratios increased with the daily dose for tricyclic antidepressants, reaching 2.4 (95 percent confidence interval, 2.1 to 2.8) for doses of 50 mg or more of amitriptyline or its equivalent, and for the serotonin-reuptake inhibitors, reaching 1.9 (1.7 to 2.2) for 20 mg or more of fluoxetine or its equivalent. The elevated rates of falls persisted through the first 180 days of therapy and beyond. CONCLUSIONS: In this large study of nursing home residents, there was little difference in

rates of falls between those treated with tricyclic antidepressants and those treated with selective serotonin-reuptake inhibitors. Hence, the preferential use of the newer antidepressants is unlikely to reduce the higher rate of falls among nursing home residents taking antidepressants.

Keywords: Accidental Falls--statistics & numerical data; Antidepressive Agents, Tricyclic--adverse effects; Serotonin Uptake Inhibitors--adverse effects; Other Subjects (MeSH): Antidepressive Agents, Second-Generation--adverse effects; Cohort Studies; Depressive Disorder--complications; Depressive Disorder--drug therapy; Frail Elderly--statistics & numerical data; Nursing Homes--statistics & numerical data; Poisson Distribution; Regression Analysis; Retrospective Studies; Risk Factors; Limits: Aged; Aged, 80 and over; Comparative Study; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Tielsch JM, Javitt JC, Coleman A, Katz J, Sommer A
Title: The prevalence of blindness and visual impairment among nursing home residents in Baltimore
Journal: New England Journal of Medicine
Year: 1995 May 4
Volume: 332
Number: 18
Pages: 1205-1209
Notes: Vision Care
Abstract: BACKGROUND. Although the prevalence of blindness and visual impairment increases with age, most surveys of ocular disease do not include nursing home residents. METHODS. We conducted a population-based prevalence survey of persons 40 years of age or older residing in nursing homes in the Baltimore area. Of 738 eligible subjects in 30 nursing homes, 499 (67.6 percent) participated in the study. They had their eyes examined and their visual acuity tested and were interviewed in detail. The nonparticipants were more likely to be older, to be white, and to have lower scores on the Mini-Mental State Examination. RESULTS. The prevalence of bilateral blindness (visual acuity < or = 20/200) was 17.0 percent. The prevalence of visual impairment (< 20/40 but > 20/200) was 18.8 percent. The frequency of blindness increased from 15.2 percent among those under 60 years of age to 28.6 percent among those 90 or older. The age-adjusted prevalence of blindness was 50 percent higher among blacks than among whites (P < 0.01). As compared with the noninstitutionalized population from the same communities, the rate of blindness among nursing home residents was 13.1 times higher for blacks and 15.6 times higher for whites. Cataract was the leading cause of blindness, followed by corneal opacity, macular degeneration, and glaucoma. We judged that 20 percent of the functional blindness and 37 percent of the visual impairment could be remedied by adequate refractive correction. CONCLUSIONS. Blindness and visual impairment are highly prevalent among nursing home residents. Much of this loss of vision could be treated or prevented with appropriate ophthalmologic care.
Keywords: Blindness--epidemiology; Nursing Homes--utilization; Vision Disorders--epidemiology; Other Subjects (MeSH): Age Distribution; Blindness--ethnology; Blindness--etiology; Cataract--complications; Linear Models; Negroid Race; Nursing Homes--statistics & numerical data; Prevalence; Refractive Errors--complications; Vision Disorders--etiology; Baltimore--epidemiology; Limits: Adult; Aged; Aged, 80 and over; Comparative Study; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Tinetti ME, Mendes de Leon CF, Doucette JT, Baker DI
Title: Fear of falling and fall-related efficacy in relationship to functioning among community-living elders
Journal: Journal of Gerontology
Year: 1994 May
Volume: 49
Number: 3
Pages: M140-M147
Notes: Falls and Mobility Problems
Abstract: BACKGROUND. The relationships of fear of falling and fall-related efficacy with measures of basic and instrumental activities of daily living (ADL-IADL) and physical and social functioning

were evaluated in a cohort of community-living elderly persons. METHODS. Sociodemographic, medical, psychological, and physical performance (e.g., gait speed, timed hand function) measures were administered, during an in-home assessment, to a probability sample of 1,103 residents of New Haven, Connecticut, who were > or = 72 years of age. Falls and injuries in the past year, fear of falling, and responses to the Falls Efficacy Scale were also ascertained. The three dependent variables included a 10-item ADL-IADL scale, an 8-item social activity scale, and a scale of relative physical activity level. RESULTS. Among cohort members, 57% denied fear of falling whereas 24% acknowledged fear but denied effect on activity; 19% acknowledged avoiding activities because of fear of falling. Twenty-four percent of recent fallers vs 15% of nonfallers acknowledged this activity restriction (chi 2 = 13.1; p < .001). Mean fall-related efficacy score among the cohort was 84.9 (SD 20.5), 79.8 (SD 23.4), and 88.1 (SD 17.9) among fallers and nonfallers, respectively (p < or = .0001). Fall-related efficacy proved a potent independent correlate of ADL-IADL (partial correlation = .265, p < .001); physical (partial correlation = .234, p < .001); and social (partial correlation = .088, p < .01), functioning in multiple regression models after adjusting for sociodemographic, medical, psychological, and physical performance covariates as well as history of recent falls and injuries. Fear of falling was only marginally related (p = .05) with ADL-IADL functioning and was not associated with higher level physical or social functioning. CONCLUSIONS. The strong independent association between self-efficacy and function found in this study suggests that clinical programs in areas such as prevention, geriatric evaluation and management, and rehabilitation should attempt simultaneously to improve physical skills and confidence. Available knowledge of the factors influencing efficacy should guide the development of these efficacy-building programs.

Keywords: Accidental Falls; Activities of Daily Living; Attitude to Health; Fear; Other Subjects (MeSH): Cohort Studies; Life Style; Motor Activity--physiology; Multivariate Analysis; Social Environment; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Tinetti ME, Williams TF, Mayewski R
Title: Fall risk index for elderly patients based on number of chronic disabilities
Journal: American Journal of Medicine
Year: 1986 Mar
Volume: 80
Number: 3
Pages: 429-434
Notes: Falls and Mobility Problems
Abstract: The present study was designed to identify prospectively the individual chronic characteristics associated with falling among elderly persons and to test the hypothesis that risk of falling increases as the number of chronic disabilities increases. Seventy-nine consecutive admissions to three intermediate care facilities were evaluated. Twenty-five of the subjects became recurrent fallers. The nine risk factors included in the fall risk index were mobility score, morale score, mental status score, distant vision, hearing, postural blood pressure, results of back examination, postadmission medications, and admission activities of daily living score. A subject's fall risk score was the number of index factors present. The proportions of recurrent fallers increased from 0 percent (0 of 30) in those with 0 to three risk factors, to 31 percent (11 of 35) in those with four to six factors, to 100 percent (14 of 14) in those with seven or more factors. Falling, at least among some elderly persons, appears to result from the accumulated effect of multiple specific disabilities. Some of these disabilities may be remediable. The mobility test, the best single predictor of recurrent falling, may be useful clinically because it is simple, recreates fall situations, and provides a dynamic, integrated assessment of mobility.
Keywords: Accidents; Activities of Daily Living; Chronic Disease--psychology; Other Subjects (MeSH): Gait; Institutionalization; Intermediate Care Facilities; Movement Disorders--complications; Physical Examination; Prospective Studies; Recurrence; Limits: Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Vellas BJ, Albarede JL, Garry PJ

Title: Diseases and aging: patterns of morbidity with age; relationship between aging and age-associated diseases
Journal: American Journal of Clinical Nutrition
Year: 1992 Jun
Volume: 55
Number: 6 Suppl
Pages: 1225S-1230S
Notes: Elderly Epidemiology
Abstract: Patterns of morbidity with age can be schematically represented in three situations: 1) as a progressive illness, such as Alzheimer's disease, leading to a relatively rapid functional decline. 2) as a catastrophic event, such as a stroke or hip fracture, leading to a decline in function with improvement after rehabilitation. 3) as normal aging with gradual progressive functional decline. Results from the New Mexico Aging Process Study provide some unique insights about the consequences of the effects of aging on the nutritional status of healthy elderly people. Between 1979 and 1989, anthropometric and biochemical markers as well as dietary intakes remained relatively constant in this healthy elderly population. Thus, the aging process alone may have little or no important consequences on the nutritional status of healthy elderly individuals. However, the adaptation of pancreatic and intestinal function to undernutrition and refeeding can be perturbed in these individuals.
Keywords: Aging--pathology; Geriatrics; Other Subjects (MeSH): Accidental Falls; Alzheimer Disease--etiology; Cerebrovascular Disorders--etiology; Hip Fractures--etiology; Morbidity; Neoplasms--etiology; Nutrition; Nutrition Disorders--complications; Limits: Aged; Human; Support, U.S. Gov't, P.H.S.

Author: Verbrugge LM, Lepkowski JM, Konkol LL
Title: Levels of disability among U.S. adults with arthritis
Journal: Journal of Gerontology
Year: 1991 Mar
Volume: 46
Number: 2
Pages: S71-S83
Notes: Osteoarthritis
Abstract: This article studies the excess levels of disability experienced by persons with arthritis, compared to persons without the disease. The data set is the Supplement on Aging (1984 National Health Interview Survey); it has information for a national probability sample of community-dwelling persons ages 55 + (N = 16,148). (1) Arthritis people have more difficulty in physical functions, personal care, and household care than do nonarthritis persons. The excess disability is greatest for physical functions (walking, reaching, stooping, etc.). Disabled arthritis people have especially high degrees of difficulty in physical activities that require endurance and strength. (2) Various models are tested for walking, grasping, shopping, and light housework to show how comorbidity propels disability for arthritis people and to show arthritis' own contribution to disability in the presence of other chronic conditions. Difficulties escalate for arthritis people when they have other concurrent conditions. These models affirm that arthritis has a pronounced effect on physical dysfunctions, but these are not readily translated into personal and household care problems. Apparently, arthritis people often make successful accommodations so their roles and daily activities are not seriously affected by the disease.
Keywords: Arthritis--physiopathology; Disability Evaluation; Other Subjects (MeSH): Activities of Daily Living; Arthritis--epidemiology; Chronic Disease; Comorbidity; Hand--physiopathology; Locomotion--physiology; Logistic Models; Prevalence; Regression Analysis; Self Care; United States--epidemiology; Limits: Aged; Aged, 80 and over; Comparative Study; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Violaris AG, Angelini GD
Title: Myocardial revascularisation in the elderly: complementary roles for coronary angioplasty and bypass grafting

Journal: International Journal of Cardiology
Year: 1994 Mar 15
Volume: 44
Number: 1
Pages: 53-55
Notes: Ischemic Heart Disease
Abstract: Coronary artery disease is a common finding, responsible for substantial morbidity and mortality in the elderly. Despite this, there is a general reluctance to refer elderly patients for further investigation as the perceived risks are thought to outweight any potential benefit. This is not however borne out by the available evidence, which suggests that revascularisation procedures carry little additional risk in appropriately selected elderly patients. Chronological age per se should, therefore, no longer be a bar to myocardial revascularisation.
Keywords: Coronary Disease--surgery; Myocardial Revascularization; Other Subjects (MeSH): Age Factors; Angioplasty, Transluminal, Percutaneous Coronary; Coronary Artery Bypass; Limits: Aged; Human

Author: Virmani J, Schneiderman LJ, Kaplan RM
Title: Relationship of advance directives to physician-patient communication
Journal: Archives of Internal Medicine
Year: 1994 Apr 25
Volume: 154
Number: 8
Pages: 909-913
Notes: End of Life
Abstract: BACKGROUND: Although advance medical directives, such as living wills and durable powers of attorney for health care, are by themselves imperfect instruments for expressing patients' treatment preferences, a possible benefit of these documents is that they will enhance patient-physician communication, especially when end-of-life treatment decisions have to be made. METHOD: Structured interviews were completed for 115 seriously ill cancer patients and 22 of their physicians. The questions dealt with various aspects of advance directives, including communications between the two parties regarding general and specific treatment wishes. Responses were compared in 37 physician-patient pairs for patients who had executed advance directives and in 31 physician-patient pairs for patients who had not executed advance directives. RESULTS: Physicians were frequently unaware of their patients' advance directives. Although patients with advance directives were marginally more likely than patients without advance directives to report discussions about end-of-life treatment decisions, only 34 (30%) out of the total of 115 patients claimed that they had any discussion of treatment decisions with their physicians. Such discussions tended to be about general life attitudes and feelings rather than specific treatments, such as use of artificial nutrition or ventilation. CONCLUSION: Despite public enthusiasm for the use of advance directives and great efforts to promote them, we found little evidence that these documents are associated with enhanced communication between patients and physicians about end-of-life treatment decisions.
Keywords: Advance Directives--statistics & numerical data; Communication; Physician-Patient Relations; Other Subjects (MeSH): Decision Making; Neoplasms; California; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Vita AJ, Terry RB, Hubert HB, Fries JF
Title: Aging, health risks, and cumulative disability
Journal: New England Journal of Medicine
Year: 1998 Apr 9
Volume: 338
Number: 15
Pages: 1035-1041
Notes: Malnutrition
Abstract: BACKGROUND: Persons with lower health risks tend to live longer than those with higher health risks, but there has been concern that greater longevity may bring with it greater

disability. We performed a longitudinal study to determine whether persons with lower potentially modifiable health risks have more or less cumulative disability. METHODS: We studied 1741 university alumni who were surveyed first in 1962 (average age, 43 years) and then annually starting in 1986. Strata of high, moderate, and low risk were defined on the basis of smoking, body-mass index, and exercise patterns. Cumulative disability was determined with a health-assessment questionnaire and scored on a scale of 0 to 3. Cumulative disability from 1986 to 1994 (average age in 1994, 75 years) or death was the measure of lifetime disability. RESULTS: Persons with high health risks in 1962 or 1986 had twice the cumulative disability of those with low health risks (disability index, 1.02 vs. 0.49; P<0.001). The results were consistent among survivors, subjects who died, men, and women and for both the last year and the last two years of observation. The onset of disability was postponed by more than five years in the low-risk group as compared with the high-risk group. The disability index for the low-risk subjects who died was half that for the high-risk subjects in the last one or two years of observation. CONCLUSIONS: Smoking, body-mass index, and exercise patterns in midlife and late adulthood are predictors of subsequent disability. Not only do persons with better health habits survive longer, but in such persons, disability is postponed and compressed into fewer years at the end of life.

Keywords: Aging; Disabled Persons--statistics & numerical data; Health Behavior; Other Subjects (MeSH): Activities of Daily Living; Body Mass Index; Disability Evaluation; Disabled Persons--classification; Exercise; Health Status; Longitudinal Studies; Mortality; Risk Factors; Smoking--epidemiology; Limits: Adult; Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Wallace JI, Schwartz RS, LaCroix AZ, Uhlmann RF, Pearlman RA
Title: Involuntary weight loss in older outpatients: incidence and clinical significance
Journal: Journal of the American Geriatrics Society
Year: 1995 Apr
Volume: 43
Number: 4
Pages: 329-337
Notes: Malnutrition
Abstract: OBJECTIVES: To describe the incidence, anthropometric parameters, and clinical significance of weight loss in older outpatients. DESIGN: Four-year prospective cohort study. SETTING: University-affiliated Veterans Affairs Medical Center. PATIENTS: Two hundred forty-seven community-dwelling male veterans 65 years of age or older. MEASUREMENTS: Anthropometrics (weight, height, skin-folds, and circumferences), health status measures (Sickness Impact Profile scores, health care utilization, self-reported ratings of health), and bloodwork (cholesterol, albumin, others) were obtained at baseline and followed annually for 2 years. Outcome measures (hospitalization, nursing home placement, and mortality rates) were followed for a minimum of 2 years after any identified weight change. MAIN RESULTS: The mean annual percentage weight change for the study population was -0.5% (SD: +/- 4.0%; range: -17% to +25%). Four percent annual weight loss was determined to be the optimal cutpoint for defining clinically important involuntary weight loss using ROC curve analysis. The annual incidence of this degree of involuntary weight loss was 13.1%. At baseline, involuntary weight losers were similar to nonweight losers in age (73.9 +/- 7.9 vs 73.3 +/- 6.7 years), body mass index (26.8 +/- 3.9 vs 26.9 +/- 4.1 kg/m2), and all other anthropometric, health status, and laboratory measures. Relative to nonweight losers, involuntary weight losers had significantly (P < or = .05) greater decrements in central skinfold and circumference measures (subscapular skinfolds, -2.9 vs -0.4 mm; suprailiac skinfolds, -4.2 vs -0.2 mm; and waist to hip ratio, -.01 vs + .00). Both groups had significant decreases in their triceps skinfolds (an estimate of peripheral subcutaneous fat), whereas arm muscle area and albumin levels did not decline significantly in either group. Over a 2-year follow-up period, mortality rates were substantially higher (RR = 2.43; 95% CI = 1.34-4.41) among involuntary weight losers (28%) than among nonweight losers (11%). Of interest, a similar increase in 2-year mortality (36%) was also observed among subjects with voluntary weight loss (by dieting). Survival analyses adjusting for differences between weight losers and nonweight losers in baseline age, BMI, tobacco use, and other health status and laboratory measures yielded similar results. CONCLUSIONS: These results indicate that involuntary weight loss occurred frequently (13.1%

N=247

annual incidence) in this population of older veteran outpatients. When involuntary weight loss occurred, the predominant anthropometric changes were decrements in measures of centrally distributed fat (trunkal skinfolds and circumferences). Finally, involuntary weight loss greater than 4% of body weight appears to be clinically important as an independent predictor of increased mortality.

Keywords: Outpatients; Weight Loss; Other Subjects (MeSH): Age Factors; Anthropometry; Incidence; Mortality; Outcome Assessment (Health Care); Outpatients--statistics & numerical data; Prospective Studies; ROC Curve; Veterans; Limits: Aged; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.

Author: Waltzman SB, Cohen NL, Shapiro WH
Title: The benefits of cochlear implantation in the geriatric population
Journal: Otolaryngology - Head and Neck Surgery
Year: 1993 Apr
Volume: 108
Number: 4
Pages: 329-333
Notes: Hearing Loss
Abstract: The deterioration of speech-understanding abilities in the aged that results from factors such as reduced speed and accuracy in processing has been well documented. The purpose of this study was to evaluate whether the geriatric population could benefit from a cochlear implant, despite the possibility of reduced processing abilities. Twenty patients, ages 65 to 85 years, with bilateral profound sensorineural hearing loss received the Nucleus multichannel cochlear prosthesis at NYU Medical Center. All patients underwent extensive preoperative medical and audiologic assessments to determine candidacy. The surgical procedure was well-tolerated by all patients. Mean postoperative test results revealed significant improvements in both auditory performance and quality of life as a result of implant usage. These data support the concept that although a reduction in the processing of sensory stimulation might exist, the elderly can process a new auditory code delivered by means of a cochlear implant.
Keywords: Cochlear Implants; Other Subjects (MeSH): Age Factors; Hearing Loss, Sensorineural--surgery; Hearing Tests; Quality of Life; Limits: Aged; Aged, 80 and over; Female; Human; Male

Author: Weaver WD, Litwin PE, Martin JS, Kudenchuk PJ, Maynard C, Eisenberg MS, Ho MT, Cobb LA, Kennedy JW, Wirkus MS
Title: Effect of age on use of thrombolytic therapy and mortality in acute myocardial infarction. The MITI Project Group
Journal: Journal of the American College of Cardiology
Year: 1991 Sep
Volume: 18
Number: 3
Pages: 657-662
Notes: Ischemic Heart Disease
Abstract: The findings in 3,256 consecutive patients hospitalized for acute myocardial infarction were tabulated to assess the history, treatments and outcome in the elderly; 1,848 patients (56%) were greater than 65 years of age, including 28% who were aged greater than or equal to 75 years. The incidence of prior angina, hypertension and heart failure (only 3% of patients less than 55 years of age had a history of heart failure compared with 24% greater than or equal to 75 years old) was found to increase with age. Twenty-nine percent of patients less than 75 years of age were treated with a systemic thrombolytic drug compared with only 5% of patients older than 75 years. Mortality rates increased strikingly with advanced age (less than 2% in patients less than or equal to 55, 4.6% in those 55 to 64, 12.3% in those 65 to 74 and 17.8% in those greater than or equal to 75 years). Both the incidence of complicating illness and a nondiagnostic electrocardiogram (ECG) increased with age. In a multivariate analysis of outcome in older patients (greater than or equal to 65 years), adverse events were related to both prior history of heart failure (odds ratio 3.9) and increasing age (odds ratio 1.4 per each decade of age). Outcome was not improved by treatment with thrombolytic drugs, but these agents were prescribed to only 12% of patients greater than 65 years of age, thereby reducing

the power for detecting such an effect.(ABSTRACT TRUNCATED AT 250 WORDS).

Keywords: Myocardial Infarction--mortality; Thrombolytic Therapy--utilization; Other Subjects (MeSH): Age Factors; Comorbidity; Emergencies; Multivariate Analysis; Myocardial Infarction--drug therapy; Risk Factors; Time Factors; Limits: Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Weinstein BE
Title: The quantification of hearing aid benefit in the elderly: the role of self-assessment measures
Journal: Acta Oto-Laryngologica
Year: 1990
Volume: 476
Number: Supplement
Pages: 257-261
Notes: Hearing Loss
Abstract: The efficacy of disease-specific self-assessment scales, as a measure of hearing aid benefit in the elderly, has recently been documented by several investigators. One of the most robust measures appears to be the Hearing Handicap Inventory for the Elderly (HHIE), an instrument which assesses the emotional and social effects of hearing loss in the elderly. Using the HHIE, statistically and clinically significant improvements in self-perceived handicap have been noted at three week, six week, four month and one year intervals. Interestingly, longitudinal studies have demonstrated that the percentage improvement in hearing handicap is typically sustained when subjects undergo longitudinal testing. The ten item screening version of the HHIE (HHIE-S), which is an effective outcome measure has also been shown to be predictive of hearing aid uptake. The aforementioned findings have implications for rehabilitative programming, quality assurance studies, government and third party payers considering reimbursement of hearing aids.
Keywords: Attitude to Health; Hearing Aids; Presbycusis--rehabilitation; Other Subjects (MeSH): Disability Evaluation; Longitudinal Studies; Presbycusis--psychology; Questionnaires; Self Concept; Limits: Aged; Human; Male

Author: West SK, Munoz B, Rubin GS, Schein OD, Bandeen-Roche K, Zeger S, German S, Fried LP
Title: Function and visual impairment in a population-based study of older adults. The SEE project. Salisbury Eye Evaluation
Journal: Investigative Ophthalmology and Visual Science
Year: 1997 Jan
Volume: 38
Number: 1
Pages: 72-82
Notes: Vision Care
Abstract: PURPOSE: The Salisbury Eye Evaluation (SEE) project investigates the impact of vision on functional status in a population-based sample of elderly persons. The prevalence of self-reports of functional status and the association with visual acuity loss are described. METHODS: A random sample of men and women 65 to 84 years of age from Salisbury, Maryland were recruited for home interviews and clinic examinations. Of the eligible sample, 78% responded to the home questionnaire and 65% responded to the questionnaire and the clinic examination. Binocular visual acuity of each person was measured using ETDRS charts and protocols. Questions were asked concerning activities of daily living, instrumental activities of daily living, physical function, social interaction, and activities of daily vision. Analyses of the association of presenting visual acuity worse than 20/40 with the measures of function were carried out and adjusted for age, race, and sex. RESULTS: All measures of functional status showed a decline with age; women and blacks were more likely to report difficulties. The age-adjusted proportions of those with visual impairment were not significantly different between men and women (7.2% versus 6.7%; P = 0.60). Black persons had almost twice the rate (10.4%) of white persons (5.6%; P < 0.001). Age, race, gender, and visual impairment were all significantly related to declines in functional status in multivariate models. CONCLUSIONS: Data on functional status in the project population were similar to national data and confirmed higher rates of disability in women and blacks. Binocular visual acuity worse than 20/40

appeared to have an impact on all the self-report measures of functional status. Further analyses on the interaction of vision with other comorbid conditions on function status clearly are indicated.

Keywords: Activities of Daily Living; Aging--physiology; Vision Disorders--epidemiology; Visual Acuity--physiology; Other Subjects (MeSH): Caucasoid Race; Health Status; Negroid Race; Questionnaires; Random Allocation; Rural Population; Self Disclosure; Vision Disorders--physiopathology; Maryland--epidemiology; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: White HD, Barbash GI, Califf RM, Simes RJ, Granger CB, Weaver WD, Kleiman NS, Aylward PE, Gore JM, Vahanian A, Lee KL, Ross AM, Topol EJ
Title: Age and outcome with contemporary thrombolytic therapy. Results from the GUSTO-I trial. Global Utilization of Streptokinase and TPA for Occluded coronary arteries trial
Journal: Circulation
Year: 1996 Oct 15
Volume: 94
Number: 8
Pages: 1826-1833
Notes: Ischemic Heart Disease
Abstract: BACKGROUND: Elderly patients with acute myocardial infarction have much to gain from reperfusion with thrombolytic therapy but are also at increased risk of adverse events. We examined outcomes according to age of patients receiving thrombolysis in an international trial. METHODS AND RESULTS: Patients were randomized to streptokinase plus subcutaneous heparin, streptokinase plus intravenous heparin, accelerated tissue plasminogen activator (TPA) plus intravenous heparin, or streptokinase and TPA plus intravenous heparin. Clinical outcomes at 30 days (death, stroke, and nonfatal, disabling stroke) and 1-year mortality were summarized descriptively for patients aged < 65 (n = 24,708), 65 to 74 (n = 11,201), 75 to 85 (n = 4625), and > 85 years (n = 412) and assessed as continuous functions of age. Older patients had a higher-risk profile with regard to baseline clinical and angiographic characteristics. Mortality at 30 days increased markedly with age (3.0%, 9.5%, 19.6%, and 30.3% in the four groups, respectively), as did stroke, cardiogenic shock, bleeding, and reinfarction. Combined death or disabling stroke occurred less often with accelerated TPA in all but the oldest patients, who showed a weak trend toward a lower incidence with streptokinase plus subcutaneous heparin: odds ratio 1.13; 95% confidence interval 0.6, 2.1. Similarly, accelerated TPA treatment resulted in lower 1-year mortality in all but the oldest patients (47% TPA versus 40.3% streptokinase). CONCLUSIONS: Lower mortality and greater net clinical benefit were seen with accelerated TPA in patients aged < or = 85 years. Because data are limited for patients aged > 85 years, the relative superiority of a given thrombolytic regimen cannot be determined. The interactions of stroke and mortality with newer thrombolytic strategies must be examined explicitly in older patients.
Keywords: Aging--physiology; Myocardial Infarction--therapy; Thrombolytic Therapy; Other Subjects (MeSH): Fibrinolytic Agents--therapeutic use; Myocardial Infarction--physiopathology; Plasminogen Activators--therapeutic use; Streptokinase--therapeutic use; Survival Analysis; Tissue Plasminogen Activator--therapeutic use; Treatment Outcome; Limits: Aged; Aged, 80 and over; Comparative Study; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Wolf PA, Abbott RD, Kannel WB
Title: Atrial fibrillation as an independent risk factor for stroke: the Framingham Study
Journal: Stroke
Year: 1991 Aug
Volume: 22
Number: 8
Pages: 983-988
Notes: Stroke
Abstract: The impact of nonrheumatic atrial fibrillation, hypertension, coronary heart disease, and cardiac failure on stroke incidence was examined in 5,070 participants in the Framingham Study after 34 years of follow-up. Compared with subjects free of these conditions, the age-adjusted

incidence of stroke was more than doubled in the presence of coronary heart disease (p less than 0.001) and more than trebled in the presence of hypertension (p less than 0.001). There was a more than fourfold excess of stroke in subjects with cardiac failure (p less than 0.001) and a near fivefold excess when atrial fibrillation was present (p less than 0.001). In persons with coronary heart disease or cardiac failure, atrial fibrillation doubled the stroke risk in men and trebled the risk in women. With increasing age the effects of hypertension, coronary heart disease, and cardiac failure on the risk of stroke became progressively weaker (p less than 0.05). Advancing age, however, did not reduce the significant impact of atrial fibrillation. For persons aged 80-89 years, atrial fibrillation was the sole cardiovascular condition to exert an independent effect on stroke incidence (p less than 0.001). The attributable risk of stroke for all cardiovascular contributors decreased with age except for atrial fibrillation, for which the attributable risk increased significantly (p less than 0.01), rising from 1.5% for those aged 50-59 years to 23.5% for those aged 80-89 years. While these findings highlight the impact of each cardiovascular condition on the risk of stroke, the data suggest that the elderly are particularly vulnerable to stroke when atrial fibrillation is present. (ABSTRACT TRUNCATED AT 250 WORDS).

Keywords: Atrial Fibrillation--complications; Cerebrovascular Disorders--etiology; Other Subjects (MeSH): Cardiovascular Diseases--complications; Cerebrovascular Disorders--epidemiology; Incidence; Prevalence; Risk Factors; Sex Factors; Limits: Aged; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Woo J, Chan SM, Mak YT, Swaminathan R
Title: Biochemical predictors of short term mortality in elderly residents of chronic care institutions
Journal: Journal of Clinical Pathology
Year: 1989 Dec
Volume: 42
Number: 12
Pages: 1241-1245
Notes: Malnutrition
Abstract: A survey of 208 elderly subjects living in four long term care institutions was undertaken over three months to identify nutritional and other variables that could be used to predict mortality during the subsequent three months. There were 58 men (mean age (SD) 75.6 (9.6) years) and 150 women (79.5 (8.4) years). Twenty nine subjects died (12 men and 17 women) within three months of completing the study. Twenty eight out of 57 variables differed significantly between those who died and those who survived. Subjects who died had lower systolic blood pressure, poorer intake of protein calories, lower concentrations of haemoglobin, plasma retinol, zinc, total cholesterol, and higher albumin adjusted plasma calcium concentrations. Stepwise regression analysis identified five variables that predicted mortality: plasma fructosamine; transferrin; glycosylated haemoglobin; prealbumin; and haemoglobin. The sensitivity, specificity, and predictive values of the discriminant function score using 0 as the demarcation between survivors and non-survivors were 75%, 97%, and 95%, respectively. This score could therefore be used to identify those most in need of nutritional support.
Keywords: Mortality; Residential Facilities--utilization; Other Subjects (MeSH): Discriminant Analysis; Long-Term Care; Nutritional Status--physiology; Predictive Value of Tests; Protein-Energy Malnutrition--epidemiology; Hong Kong--epidemiology; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't

Author: Yang XS, Willems JL, Pardaens J, De Geest H
Title: Acute myocardial infarction in the very elderly. A comparison with younger age groups
Journal: Acta Cardiologica
Year: 1987
Volume: 42
Number: 1
Pages: 59-68
Notes: Ischemic Heart Disease
Abstract: In a consecutive series of 2312 patients with acute myocardial infarction (AMI) admitted from

1973 till 1979, 188 were 80 years or older (group III). They were compared with 1167 patients younger than 65 years (group I) and 957 aged 65 to 79 years (group II). The sex ratio (males/females) fell from 5.46 in group I to 0.9 in group III. Group III patients had more frequently a history of previous heart failure and more often atypical or no chest pain before admission. Less group III patients were admitted within 4 hours after onset of symptoms, but the incidence of heart failure, pulmonary edema and cardiogenic shock on admission and during CCU stay was definitely higher than in younger patients. Atrial arrhythmias, 2nd and 3rd degree atrioventricular block, complete bundle branch block and intraventricular conduction disturbances occurred more frequently in group III. The electrocardiographic extent and location of the infarction and peak enzyme levels were similar in the three groups. Mortality in group III was 43.6% at the 28th day and 76.6% at one year after AMI. At different intervals after the onset of AMI mortality increased progressively from group I to III. Age by itself, probably on the basis of definite structural changes of the heart and of other organs occurring during aging, leads to higher early and late mortality in very elderly people.

Keywords: Myocardial Infarction--diagnosis; Other Subjects (MeSH): Electrocardiography; Enzymes--blood; Myocardial Infarction--mortality; Limits: Aged; Aged, 80 and over; Comparative Study; Female; Human; Male; Middle Age

Author: Yelin EH, Katz PP
Title: Transitions in health status among community-dwelling elderly people with arthritis. A national, longitudinal study
Journal: Arthritis and Rheumatism
Year: 1990 Aug
Volume: 33
Number: 8
Pages: 1205-1215
Notes: Osteoarthritis
Abstract: We used the Longitudinal Study on Aging, a national study of community-dwelling elderly people, to 1) estimate the number of elderly persons with arthritis, with and without other chronic conditions, living in the community in 1984, who reported limitations in physical activities, activities of daily living (ADL), and instrumental activities of daily living (IADL); 2) enumerate the population of the elderly with arthritis who were receiving help or paid help with ADL or IADL; and 3) estimate the number of such persons experiencing a change in health status in the ensuing 2 years. In 1984, 14% of all 15.6 million community-dwelling elderly people had arthritis and no other chronic conditions; 41% had arthritis concurrently with other chronic conditions. Of the former group, 66% experienced limitations in physical activities, but only approximately 25% reported limitations in ADL or IADL in 1984. Among the group with arthritis and other chronic conditions, 82% were limited in at least 1 physical activity, and 41% were limited in ADL. With the passage of 2 years, 2% of elderly persons with arthritis and no other conditions had entered a nursing home, 7% had died, and the percentage reporting no limitation declined significantly. Among elderly persons with arthritis and other conditions, 4% entered a nursing home, 12% died, and the rates of all forms of limitation increased. It is essential to gather data such as these, on the prevalence and incidence of limitation among the elderly with arthritis, to ensure adequate long-term care services for an increasing aged population.

Keywords: Arthritis--physiopathology; Health Status; Other Subjects (MeSH): Activities of Daily Living; Arthritis--complications; Arthritis--mortality; Community Health Services; Disability Evaluation; Longitudinal Studies; Limits: Aged; Human; Support, U.S. Gov't, P.H.S.

UTILIZATION

Author: American Association of Retired Persons, Public Policy Institute, Center on Elderly People Living Alone
Book Title: Across the states: profiles of long-term care systems
Year: 1994
Location: Washington, DC
Abstract: Presents state-by-state profiles on long term care populations. Four main sections of statistical data are presented for each state: demographics of the state's elderly population, including percentages aged 65 and over, 75 and over, 85 and over; percentage of population aged 65 and over living alone, and percentage change in population aged 65 and over between 1982 and 1992; recipients of long term care, including Medicaid and Medicare data on recipients of home and community-based care, institutional care, and percentage of nursing home residents with activities of daily living (ADL) limitations in 1989; providers of long term care, including the number of Medicare-certified home care agencies, licensed adult day care centers, residential care facilities, and nursing homes, and occupancy rates; and expenditures for long term care, including Medicaid statistics for 1993 and Medicare data for 1992, such as total Medicaid expenditures, long term care Medicaid expenditures by industry subgroup, long term care expenditures as a percentage of total Medicaid expenditures, and averaged Medicaid and Medicare reimbursement rates for nursing homes, skilled nursing facilities, and home health care providers. Rankings for selected data and a discussion of statistical data sources are also provided. Data are presented in useful tables and graph formats. (TS) (AgeLine Database, copyright 1995 American Association of Retired Persons, all rights reserved).
Keywords: Older Adults, United States, State, Statistical Data, Long Term Care, Costs, Financing, Medicare, Medicaid, Demographic Characteristics, Population Aging, Service Utilization, Nursing Homes, Home Care, Skilled Nursing Facilities, Institutionalized Elderly, Noninstitutionalized Elderly, 65+, 75+, 85+.

Author: Administration on Aging, U.S. Dept.of Health and Human Services
Book Title: Infrastructure of home and community based services for the functionally impaired elderly: state source book
Year: 1994
Location: Washington, DC
Abstract: Provides a detailed overview of the infrastructure for home- and community-based services (HCBS) for functionally impaired older adults in the United States. This baseline survey data was collected by the Administration on Aging (AoA) during 1993. Summary tables provide profiles of potential demand for HCBS by older adults, nursing home and board and care facilities, HCBS expenditures for functionally impaired older adults, and state unit on aging responsibilities. State tables provide information for each of the 50 states and the District of Columbia in regard to population profile, health and long term care facilities, utilization rates, service delivery attributes, indicators of HCBS demand, use of the single point of entry concept, use of Medicaid waivers, state source programs, HCBS expenditures, Medicaid/Medicare expenditures and utilization, HCBS expenditures by service, and the role of state units on aging and area agencies on aging. Data sources and documentation are provided. (MM) (AgeLine Database, copyright 1997 American Association of Retired Persons, all rights reserved).
Keywords: United States, Older Adults, Frail Elderly, Community Services, Home Care, Social Services, Health Services, Service Utilization, Service Demand, Nursing Homes, Long Term Care, Medicare, Medicaid, Disabled, State, Area Agencies On Aging, State Agencies On Aging

Title: Senior-age population growth may redefine 'frail elderly'
Journal: Public Sect Contract Rep
Year: 1998 Sep
Volume: 4
Number: 9
Pages: 140-141

Abstract: Data File: A key to future success in Medicare risk may be how well you manage your frail elderly members who have multiple health problems and chronic conditions. While they may just be a handful of patients in your panel now, data from the U.S. Census Bureau show their numbers are growing.
Keywords: Aged Aged, 80 and over Capitation Fee Chronic Disease Data Collection Medicare --Economics --EC Medicare --Utilization --UT Population Dynamics Risk Sharing, Financial United States/ *Frail Elderly --Statistical and Numerical Data --SN *Life Expectancy --Trends --TD *Medicare --Statistical and Numerical Data --SN

Author: Ackermann RJ, Kemle KA, Vogel RL, Griffin RC Jr.
Title: Emergency department use by nursing home residents.
Journal: Annals of Emergency Medicine
Year: 1998 Jun
Volume: 31
Number: 6
Pages: 749-757
Abstract: STUDY OBJECTIVE: To describe a community's experience with the use of emergency department services by nursing home residents. METHODS: We performed a retrospective chart review of a population-based cohort of nursing home residents in an urban county in central Georgia with 10 nursing homes (1,300 beds) and 4 hospital-based EDs. All ED visits by nursing home residents during 1995 were analyzed. Demographic data, timing of the visit, chief complaint, tests and treatments, disposition, and financial chargeswere recorded. Further, we calculated the number of ED visits per 100 nursing home patient-years. RESULTS: A total of 873 nursing home residents made1,488 ED visits. Mean age was 76.0 years; 66.4% were female, and 55.2% were white. Of the transfers, 42.9% occurred during regular working hours. The most common chief complaints were respiratory symptoms (14.4%), altered mental status (10.1%), gastrointestinal symptoms (9.9%), and falls (8.2%); 101 patients (6.8%) were transferred for malfunction of a gastrostomy tube. The most common laboratory tests were complete blood cell count (69.5%), chest radiograph (52.0%), electrocardiogram (45.0%), urinalysis (42.7%), and determination of electrolytes (42.7%). A total of 42.4% of the ED visits led to admission to the hospital. From the 10 nursing homes, there were 110 ED visits per 100 patient-years. A 3.5-fold difference in ED use among these nursing homes could not be explained by age, gender, or other factors. The average charge per ED visit was $1,239. CONCLUSION: Elders living in nursing homes are frequently transferred to EDs for costly medical evaluations, and more than 40% of such visits lead to admission to the hospital.
Keywords: <Minor> Aged Aged, 80 And Over Emergency Service, Hospital --Economics --Ec Georgia Health Care Costs Health Status Hospitalization --Statistical And Numerical Data --Sn Retrospective Studies/ <Major> *Emergency Service, Hospital --Utilization --Ut *Homes For The Aged *Nursing Homes --Statistical And Numerical Data --Sn.

Author: Anderson MA, Pena RA, Helms LB
Title: Home care utilization by congestive heart failure patients: a pilot study
Journal: Public Health Nursing
Year: 1998 Apr
Volume: 15
Number: 2
Pages: 146-162
Abstract: Home health care costs have increased more than any other health care service covered by Medicare, and new methods of payment by Medicare are being introduced. A prospective payment system would replace the per visit rate now paid to home care agencies by Medicare. In order to remain viable under a new payment system, home health care agencies will need to be efficient in the delivery of home care services and still demonstrate effective patient care. The intent of this descriptive study was to determine norms of resource utilization for the congestive heart failure (CHF) patients admitted and discharged from a not-for-profit home health agency (HHA). Forty agency records were retrospectively reviewed using the Resource Utilization Inventory to collect the characteristics and resource utilization of the sample group. The CHF patients were older than most home care clients and had chronic health problems.

Because of these chronic health problems, over half of the study population had caregivers so that the clients could remain in their own homes. Most clients clearly demonstrated the need for skilled nursing or home health aide visits after being hospitalized for an acute CHF episode. Less than half of the study group were discharged form the HHA as improved, and frequently were discharged to another healthcare facility. These results provide a beginning direction for profiling the CHF patient's consumption of resources for setting prospective reimbursement rates.

Keywords: <Minor> Aged^ Aged, 80 And Over^ Pilot Projects^ Retrospective Studies^ United States/ <Major> *Heart Failure, Congestive --Nursing --Nu^ *Home Care Services --Utilization --Ut^ *Medicare --Economics --Ec^ *Prospective Payment System.

Author: Aronow WS
Title: Underutilization of lipid-lowering drugs in older persons with priormyocardial infarction and a serum low-density lipoprotein cholesterol >125 mg/dl
Journal: American Journal of Cardiology
Year: 1998 Sep 1
Volume: 82
Number: 5
Pages: 668-669, A6, A8
Abstract: A prospective study of 500 consecutive persons (aged 60 years with Q-wave myocardial infarction admitted to a long-term health care facility) investigated the prevalence of the use of a lipid-lowering drug at the time of admission in persons with a fasting serum low-density lipoprotein (LDL) cholesterol >125 mg/dl measured the day after admission. The prevalence of a lipid-lowering drug in persons with myocardial infarction and an LDL cholesterol >125 mg/dl was 7% (11 of 153 persons) in persons 60 to 80 years of age and 3% (6 of 182 persons) in persons 81 to100 years of age.
Keywords: <Minor> Aged^ Aged, 80 And Over^ Cross-Cultural Comparison^ Drug Utilization --Statistical And Numerical Data --Sn^ Follow-Up Studies^ Hypercholesterolemia --Blood --Bl Hypercholesterolemia --Mortality --Mo^ Middle Age^ Myocardial Infarction --Blood --Bl Myocardial Infarction --Mortality --Mo^ Prospective Studies^ Scandinavia^ Survival Rate^ United States/ <Major> *Anticholesteremic Agents --Therapeutic Use --Tu^ *Hypercholesterolemia --Drug Therapy --Dt^ *Lipoproteins, Ldl Cholesterol --Blood --Bl^ *Myocardial Infarction --Drug Therapy --Dt^ *Simvastatin --Therapeutic Use --Tu

Author: Baumgarten M, Battista RN, Infante-Rivard C, Hanley JA, Becker R, Bilker WB, Gauthier S
Title: Use of physician services among family caregivers of elderly persons with dementia
Journal: Journal of Clinical Epidemiology
Year: 1997
Volume: 50
Number: 11
Pages: 1265-1272
Abstract: It is well known that there is an excess of physical and psychological health problems among family caregivers of elderly persons with Alzheimer's disease and other dementias. The objective of this study was to determine whether the higher level of morbidity translates into a higher level of medical care utilization. Data from a previously completed longitudinal study of caregivers for elderly persons with dementia were merged with data on physician visits obtained from the computerized records of the Quebec Health Insurance Board. Utilization of physician care (adjusted for age, sex, number of chronic diseases, and depression) was no higher for family caregivers of elderly patients with Alzheimer's disease and other dementias than for comparable family members of older persons without dementia. The annual cost of physician care was almost identical among caregivers and noncaregivers. However, the pattern of utilization for the two groups was somewhat different: there was a significantly higher frequency of physician utilization among caregivers for services billed by psychiatrists and internal medicine specialists. In multivariate analysis, physician utilization was significantly associated with having more than one chronic condition and with increased age. Future studies should focus on determining whether caregivers neglect their own health care needs as a result of the exigencies of the caregiving role.

Keywords: <Major Medical Term> Caregiver^Dementia^Health Care Utilization/ <Minor Medical Term> Adult^Aged^Article^Canada^Data Analysis^Female^Health Care Cost^Human^Major Clinical Study^Male^Medical Record^Morbidity^Multivariate Analysis^Physician^Priority Journal

Author: Benjamin AE, Fox PJ, Swan JH
Title: Posthospital experience of elderly medicare home health users
Journal: Home Health Care Services Quarterly
Year: 1993
Volume: 14
Number: 2-3
Pages: 19-35
Abstract: Investigated the home health care experiences of Medicare beneficiaries following hospitalization. A sample of 295 Medicare patients referred to hospital-affiliated home health care agencies in San Francisco County, California, took part in the study. Three hospital discharge screening criteria were used: persons aged 65 and older, having Medicare Part A coverage, and discharged home with a Medicare home health referral. Data were gathered through structured, personal interviews at the first and last home health visits and through review of hospital and home health records. A little over 60 percent of the participants were aged 75 and over; about two-thirds were female; and 28 percent were nonwhite, with blacks overrepresented relative to their proportion in the total California population and Hispanics and Asians underrepresented. To qualify for Medicare home health services, the beneficiary must need skilled nursing care, physical therapy, or speech therapy, as certified by a physician. Once qualified, they may also receive occupational therapy, home health aide, and social work services. The average beneficiary in the study received 14 home health visits over a 35-day period of eligibility, and all but 3.4 of these were skilled visits (nursing and therapy). While a subset of persons improved medically and functionally during the home health service period, some declined on one or both dimensions and many showed no change. The most heavily utilized non-Medicare services were personal care and homemaker/chore, reflecting the functional needs of some posthospital elderly. One-fifth of the Medicare home health users were reinstitutionalized or died during the service period. Results show that the coordinated provision of varied home services seems most responsive to the complex medical and functional needs of the frail elderly and severely disabled persons of all ages. (TS) (AgeLine Database, copyright 1994 American Association of Retired Persons, all rights reserved).
Keywords: Older Adults, United States, Patient Discharges, Medicare Beneficiaries, Demographic Characteristics, Home Health Care, Home Care, Functional Ability, Service Needs, Post Hospitalization Care, Service Utilization, Homemaker Services, Supportive Services, Frail Elderly, 65+.

Author: Berkman CS, Gurland BJ
Title: The relationship among income, other socioeconomic indicators, and functional level in older persons
Journal: Journal of Aging and Health
Year: 1998
Volume: 10
Number: 1
Pages: 81-98
Abstract: Socioeconomic status (SES) is well established as a cause of morbidity and mortality, but relatively few studies have investigated the relationship between SES and functional level. Functional level is closely related to the use of long-term care services and is a more salient indicator of quality of life than specific diseases. We used data from 1,570 respondents in the Growing Older in New York City Study, a probability sample of people age 65 and older, to examine this relationship. The association between income and function was seen throughout the full gradient of income and remained significant when controlling for age, gender, race/ethnicity, household size, education, occupation, age of immigration, and locus of control. Education and residential environment, but not occupation, were independently associated with functional level. These findings support both the association between SES and functional limitation and the hypothesis that the SFaS and health association continues into old age.

Keywords: <Major Medical Term> Health Status^Aging/ <Minor Medical Term> Income^ Socioeconomics ^Functional Assessment^Long Term Care^Health Care Utilization^Quality Of Life^ Probability ^Statistical Analysis^Hypothesis^Human^Male^Female^Major Clinical Study^ Aged^Review.

Author: Bierman AS, Magari ES, Jette AM, Splaine M, Wasson JH
Title: Assessing access as a first step toward improving the quality of care for very old adults
Journal: Journal of Ambulatory Care Management
Year: 1998 Jul
Volume: 21
Number: 3
Pages: 17-26
Abstract: Understanding the barriers to obtaining care that the population of people age 80 and older (80+) experiences is one of the first steps toward developing organizational andclinical strategies aimed at improving care. This article reviews the data from the 80+ Project's survey to assess the prevalence of barriers to care and identify the characteristics that place the 80+ population at risk. Barriers to access for older adults occur on many levels. Ultimately, the ability to improve health outcomes through reducing barriers to care is dependent on the effectiveness and quality of care received. By recognizing the barriers to care that limit access, health care professionals can begin to develop strategies to eliminate these barriers and improve the health care of older adult patients.
Keywords: Health Services for the Aged--standards; Health Services Accessibility--standards; Outcome and Process Assessment (Health Care); Quality Assurance, Health Care--standards; Aged, 80 and over; Other Subjects (MeSH): Chronic Disease; Data Collection; Health Services for the Aged--economics; Health Services Research--organization & administration; Patient Satisfaction; Socioeconomic Factors; United States; Limits: Aged; Human; Support, Non-U.S. Gov't.

Author: Black BS, Rabins PV, German P, McGuire M, Roca R
Title: Need and unmet need for mental health care among elderly public housing residents
Journal: Gerontologist
Year: 1997
Volume: 37
Number: 6
Pages: 717-728
Abstract: Epidemiologic survey data from elderly residents of six public housing developments were used to determine the prevalence of need and unmet need for mental health care. Thirty-seven percent of this predominantly African American sample needed mental health services, and 58% of those who needed care had unmet needs. Logistic regression analyses showed that males, older residents, those with no Medicare insurance, and those with more Activities of Daily Living (ADL) impairments were at greater risk of both needing mental health care and receiving no mental health care services. Findings suggest the need for targeted interventions that would increase service utilization and potentially reduce the likelihood of eviction or placement in more restrictive settings.
Keywords: <Major Medical Term> Mental Health Service^Health Care Delivery/ <Minor Medical Term> Negro^Ethnic Difference^Health Care Availability^Medicare^Health Care Utilization^Statistical Analysis^Human^Male^Female^Major Clinical Study^Aged^Adult^Article.

Author: Black BS, Rabins PV, German P, Roca R, Mcguire M, Brant LJ
Title: Use of formal and informal sources of mental health care among older African-American public-housing residents
Journal: Psychological Medicine
Year: 1998
Volume: 28
Number: 3
Pages: 519-530

Abstract: Background. Elderly residents of public housing have high rates of psychiatric disorders, but most of those in need of care do not use any mental health service. This study examines the use of formal and alternative informal sources of mental health care in a sample of elderly African-American public-housing residents. Method. Data from an epidemiological survey of six Baltimore public-housing developments for the elderly (weighted N = 818) were analysed to examine the utilization of mental health services by older African-American residents. Logistic regression analyses were used to determine correlates of using formal and informal sources by those needing mental health care. Results. Thirty-five per cent of subjects needed mental health care. Less than half (47%) of those in need received any mental health care in the previous 6 months. Residents in need were more likely to use formal (38.5%) than informal sources (18.6%) for care. The strongest correlates of using formal providers were substance use disorder (OR = 15.62), Medicare insurance (OR = 10.31) and psychological distress (OR = 10.27). The strongest correlates of using informal sources were perceiving little or no support from religious/spiritual beliefs (OR = 21.65), cognitive disorder (OR = 19.71) and having a confidant (OR = 15.07). Conclusions. Contrary to elderly African-Americans in general, those in public housing rely more on formal than informal sources for mental health problems. Nevertheless, both sources fail to fill the gap between need and met need. Interventions to increase identification, referral and treatment of elderly public-housing residents in need should target general medical providers and clergy and include assertive outreach by mental health specialists.

Author: Black C, Roos NP, Havens B, MacWilliam L
Title: Rising use of physician services by the elderly: the contribution of morbidity
Journal: Canadian Journal on Aging
Year: 1995 Summer
Volume: 14
Number: 2
Pages: 225-244
Abstract: Studied the impact of declining health status on elderly persons' utilization of physician services in Manitoba, Canada. The study involved secondary analysis of linked survey and physician claims data for representative samples of noninstitutionalized elderly in Manitoba between 1971 and 1983. Manitoba's health services are fully financed and administered by the provincial government. The samples were from the Manitoba Longitudinal Study on Aging and included 3,562 elderly in 1971 and 3,617 elderly in 1983. Five age categories (65-69, 70-74, 75-79, 80-84, and 85 and older) for each gender in both urban and rural Manitoba were used, as well as two levels of health status (poor health, good health). Interview data were linked to claims data from the provincial health insurance program to construct a profile of utilization of physician and hospital services for each respondent for each of the 2 years. Findings include the following: per capita utilization of both consult and nonconsult visits rose across all categories, with older individuals and those in poor health experiencing greater increases in utilization than younger and healthier individuals; at the aggregate level, a large percentage of the increase in utilization of medical services was related to increased numbers of elderly; changes in "need" attributable to age of the elderly population and increased morbidity had only minor effects on service utilization; at least 35 percent of the increase in nonconsult visits and 50 percent of the increase in consult visits were not specifically related to changes in need of the elderly population and remain as unexplained changes in patterns of serving individuals; and most of the increased levels of service (32 percent in nonconsultation visits and 58 percent in consultation visits) were directed to those in good health. Policy implications are discussed. (SW) (AgeLine Database, copyright 1995 American Association of Retired Persons, all rights reserved).
Keywords: Older Adults, Canada, Longitudinal Study, Manitoba, Outside United States, Health Status, Service Utilization, Physician Services, Age Differences, Noninstitutionalized Elderly, Ambulatory Care, 65+, 70+, 75+, 85+, Young Old, Old Old.

Author: Blustein J, Weiss LJ
Title: The use of mammography by women aged 75 and older: factors related to health, functioning, and age

Journal: Journal of the American Geriatrics Society
Year: 1998 Aug
Volume: 46
Number: 8
Pages: 941-946
Abstract: BACKGROUND AND OBJECTIVES: Mammographic screening for breast cancer is of uncertain clinical benefit for women 75 years of age and older. Some have argued against instituting routine screening in this age group, noting that disability and shorter life expectancy may diminish the desirability and cost-effectiveness of screening. We sought to determine the extent to which health, functioning, and age influence mammography use in this cohort. DESIGN, SETTING, AND PARTICIPANTS: A retrospective cohort study of a representative sample of women in the US aged 75 and older (n = 2352) who participated in the Medicare Current Beneficiary Survey. MEASURES: Information about general health, level of functioning, medical history, age, and various sociodemographic characteristics elicited in the survey was linked with subjects' Medicare bills for 1991 and 1992 to ascertain patterns of mammography use. RESULTS: Overall, 26.7% of the women had mammograms during the 2-year period. Advanced age was associated with a decreased likelihood of receiving a mammogram. This did not reflect simply the decline in health and functioning that may accompany aging; those aged 85 and older were less likely to receive mammograms than those in the 75 to 79 age group, controlling for general health, medical history, functional status, and sociodemographic factors (adjusted OR = .41; 95% CI = 0.27 to 0.64). ADL limitations were also associated independently with decreased mammography use. For example, controlling for age, women with any limitations in Activities of Daily Living were 0.71 times as likely to have mammograms as women without ADL limitations (95% CI = 0.59 to 0.85). However, several comorbid conditions, including hypertension, diabetes mellitus, and a history of myocardial infarction were not significantly related to mammography use. CONCLUSIONS: Within the cohort of women aged 75 and older, more advanced age and impaired functional status both substantially reduce the likelihood of mammography use. The extent to which this reflects patients' informed decisions, physicians' judgments, or pther factors remains to be explored.
Keywords: <Minor> Age Factors^ Aged^ Aged, 80 And Over^ Health Care Surveys^ Odds Ratio^ Retrospective Studies^ United States/ <Major> *Activities Of Daily Living^ *Health Status^ *Mammography --Utilization --Ut.

Author: Boersma F, Eefsting JA, van den Brink W, van Tilburg W
Title: Care services for dementia patients: predictors for service utilization
Journal: International Journal of Geriatric Psychiatry.
Year: 1997
Volume: 12
Number: 11
Pages: 1119-1126
Abstract: Studied whether sociodemographic and health-related variables are associated with care utilization among older adults with dementia. A sample of 102 persons aged 65 or older (mean age 82.9) with dementia was drawn from a population-based study. Four levels of care intensity were identified: for community-dwelling participants, no use of professional care (Level 1) and use of one or more types of professional care (Level 2); for institutionalized participants, residential living in homes for older adults (Level 3) and long term care in specialized nursing homes (Level 4). Sociodemographic variables and variables related to mental and physical health, functional dependency, and severity of dementia were studied as determinants of levels of care. Eighty-two percent of the participants used one or more types of formal care, and 55 percent were institutionalized. Multivariate analysis yielded age, severity of dementia, somatic disorders, activities of daily living (ADL)dependency, and single marital status as predictors of higher levels of care. Sets of predictors differed across different care levels. Findings highlight the importance of social networks and an active approach toward decreasing the impact of ADL dependency in persons with dementia. (KM) (AgeLine Database, copyright 1997 American Association of Retired Persons, all rights reserved).
Keywords: Older Adults, Outside United States, Netherlands, Dementia, Service Utilization, 65+, Young Old, Old Old, Centenarians, Noninstitutionalized Elderly, Institutionalized Elderly, Level Of Care, Demographic Characteristics, Health Status, Functional Ability, Activities Of Daily Living, Disease Stages.

Author: Branch LG, Coulam RF, Zimmerman YA
Title: Pace evaluation: initial findings
Journal: Gerontologist
Year: 1995 Jun
Volume: 35
Number: 3
Pages: 349-359
Abstract: Describes the implementation of the first seven demonstration models of the Program of All-inclusive Care for the Elderly (PACE), a combined Medicare and Medicaid capitation payment system for long term care services for frail elderly. Modeled after On Lok in San Francisco, California, the distinguishing features of the PACE approach include the following: nursing home-eligible clients choosing to receive long term care services in the community (although the actual nursing home eligibility requirements vary by state and by site); integrated funding and provider financial risk through capitated Medicare and Medicaid reimbursements; integrated service delivery through adult day health centers; and case management through multidisciplinary teams. The Omnibus Budget Reconciliation Act (OBRA) of 1986 mandated replication of the On Lok model at 10 sites; legislation in 1990 increased the limit on replication to 15 sites. This study documents the initial growth and development of the first seven PACE sites and evaluates information from semi-structured interviews with staff conducted during site visits in 1993. The growth and development of the seven sites plus the original On Lok program are discussed for the following areas: program structures, program marketing and census development, clients, service options and utilization, staffing patterns, and site finances. (TS) (AgeLine Database, copyright 1995 American Association of Retired Persons, all rights reserved).
Keywords: United States, Older Adults, Long Term Care, Program Description, Program Evaluation, Frail Elderly, Medicare, Medicaid, Reimbursement, Nursing Homes, Capitation, Outcomes, Federal Regulations.

Author: Brazil K, Bolton C, Ulrichsen D, Knott C
Title: Substituting home care for hospitalization: the role of a quickresponse service for the elderly
Journal: Journal of Community Health.
Year: 1998 Feb
Volume: 23
Number: 1
Pages: 29-43
Abstract: The purpose of the present study was to examine the role of a rapid access home-based service as a means for the elderly to avoid admission to an acute-care hospital. The setting for the study included emergency departments in three acute care hospitals and a home care program in a mid-size Canadian city. Multiple sources of information were obtained to evaluate the service. Hospital emergency department records and home care records were reviewed. Patients who participated in the service (n = 96) and physicians and nurses (n = 119) who had involvement with the service were surveyed appraising the service in terms of relevance, access, quality and coordination. Study results revealed that elderly women with multiple health problems who lived alone were the most frequent users of the service. The majority of the patients admitted to the service presented with problems of a functional nature that were the result of a fall or mobility problems. The results indicated that the service did avert hospital admissions and facilitated a process by which patients could avoid the intermediate step of hospitalization before placed in a higher level of care or returning to previous levels of functioning. Economic analysis indicated that the value of the service stemmed from the benefits to patients and caregivers rather than from cost savings offered to acute care hospitals.
Keywords: <Minor> Activities Of Daily Living^ Aged^ Aged, 80 And Over^ Cost Savings^ Home Care Services --Economics --Ec Home Care Services --Utilization --Ut^ Hospital Costs^ Hospitalization --Economics --Ec^ Mental Health^ Ontario^ Questionnaires/ <Major> *Geriatric Assessment^ *Home Care Services --Organization And Administration --Og^ *Hospitalization --Statistical And Numerical Data --Sn

Author: Brody KK, Johnson RE, Douglas Ried L
Title: Evaluation of a self-report screening instrument to predict frailtyoutcomes in aging populations
Journal: Gerontologist
Year: 1997 Apr
Volume: 37
Number: 2
Pages: 182-191
Abstract: The purpose of this study is to investigate the utility of a self-report screening instrument, the Health Status Form (HSF), to predict elderly members at risk of frailty in the subsequent year. The predictive ability of self-report HSF data was also compared to the predictive ability of inpatient discharges and pharmacy dispensings from administrative utilization databases. Four HSF variables best predicted elderly members at risk of frailty: (a) age, (b) indicating that health conditions interfered with daily activities, (c) needing or receiving assistance from another person for bathing, and (d) needing or receiving assistance from another person for taking medications. The predictive model yielded sensitivity 50.7%, specificity 97.8%, and correctly classified 90.9% of the population. Self-report population-based screening is a reliable method for predicting elderly members at risk of frailty in the coming year. Further studies should test a new brief instrument composed of portions of validated measures as a stand alone screener to select frail members for care management purposes.
Keywords: <Minor> Aged^ Aged, 80 And Over^ Forecasting^ Logistic Models^ Odds Ratio^ Predictive Value Of Tests/ <Major> *Frail Elderly^ *Geriatric Assessment^ *Health Surveys.

Author: Brown SI, Salive ME, Guralnik JM, Pahor M, Chapman DP, Blazer D
Title: Antidepressant use in the elderly - association with demographic characteristics, health-related factors, and health-care utilization
Journal: Journal Of Clinical Epidemiology
Year: 1995
Volume: 48
Number: 3
Pages: 445-453
Abstract: The characteristics of antidepressant use and its correlates were assessed in the four Established Populations for Epidemiologic Study of the Elderly (EPESE) communities (n = 13,074). Women were significantly more likely to be treated with an antidepressant drug than men, and African-Americans were significantly less likely than whites to be using antidepressant medication. Of the health-related measures, poor self-perceived health, polypharmacy, disabilities in activities of daily living, and a history of stroke were associated with the use of antidepressants. Each utilization of health care variable, (number of doctors visits, overnight hospitalization in the past year, and use of a regular doctor), was associated with antidepressant use in at least two of the four communities. After entering variables in a multivariate regression model, higher antidepressant use was significantly associated with female gender, race, poor self-perceived health, and a greater number of contacts with doctors in the past year.
Keywords: Author Keywords: Antidepressant/ Medication/ Depression/ Aging/ Epidemiology.

Author: Bruce J
Title: Creating more dynamic senior companion programs
Journal: Aging
Year: 1993
Volume: 365
Number:
Pages: 36-39
Abstract: Describes the potential of ACTION's Senior Companion Programs to meet the nation's growing home-based care needs. Currently, 35,000 elderly Americans are being helped to remain in their homes by 12,000 Senior Companions serving in 181 projects throughout the continental

United States, Puerto Rico, and the Virgin Islands. ACTION has initiated partnerships with several private, nonprofit, and national health care organizations to demonstrate the effectiveness of public-private partnerships in supporting local Senior Companion Programs. In one such partnership, the Visiting Nurses Association of America is training Senior Companions to provide long term care services that complement those offered by visiting nurses and other parts of the formal health care system. In a second recently concluded project, the Alzheimer's Association, through nine of its local chapters, trained Senior Companions to be providers of in-home respite care in relief of full-time caregivers. In another demonstration of the potential of public-private partnerships, the American Foundation for the Blind trained blind and visually impaired Senior Companions to help blind and visually impaired homebound persons in need of assistance. In 1991, the Administration on Aging joined with ACTION in a 3-year project to utilize Senior Companions in providing support to the frail elderly, principally those over age 80. Because Senior Companion Programs face growing competition for state and local funds, they are advised to gather represenatives from the program staff and community-based advisory council to rearticulate the program's mission and make resource development a fundamental part of program coordinators' jobs. A model Senior Companion Program in Salt Lake City, Utah, is also described. (WD) (AgeLine Database, copyright 1993 American Association of Retired Persons, all rights reserved).

Keywords: Senior Companion Program, Administration On Aging, Action, Program Description, Housebound, Volunteer Services.

Author: Burton LC, Newsom JT, Schulz R, Hirsch CH, German PS
Title: Preventive health behaviors among spousal caregivers
Journal: Preventive Medicine
Year: 1997 Mar-Apr
Volume: 26
Number: 2
Pages: 162-169
Abstract: BACKGROUND: The physical and emotional burden of caring for a functionally impaired spouse may adversely affect the preventive health behavior of the caregiver. This study explores the relationship between caregiving and lifestyle health behaviors and use of preventive services. METHODS: The Caregiver Health Effects Study identified spousal caregivers among a sample of more than 3,000 married, community-dwelling older persons, from four counties in the United States, who were enrollees in the Cardiovascular Health Study. High-level caregivers were defined as having a spouse with an ADL impairment (n = 212) and moderate-level caregivers, a spouse with one or more IADL impairments (n = 222). For each caregiver, a control, matched for age and gender, was selected (n = 385). Structured interviews were conducted in the home, following enrollment. RESULTS: Being a high-level caregiver significantly increased the odds of not getting enough rest, not having enough time to exercise, not having time to rest to recuperate from illness, and forgetting to take prescription medications, compared with noncaregivers. These findings did not hold for moderate-level caregivers. The odds were not significantly different for either level of caregiver compared with noncaregivers for missing meals, missing doctor appointments, missing flu shots, and not refilling medications. Larger proportions of caregivers with a strong sense of control had good preventive health behaviors, compared with caregivers with a weak sense of control.
Keywords: <Minor> Activities Of Daily Living --Classification --Cl^ Aged^ Aged, 80 And Over^ Analysis Of Variance^ Case-Control Studies^ Chi-Square Distribution^ Confidence Intervals^ Exercise^ Health Status^ Health Surveys^ Internal-External Control^ Logistic Models^ Odds Ratio^ Preventive Health Services --Utilization --Ut^ Self Care^ Social Support^ Spouses --Classification --Cl^ United States/ <Major> *Caregivers --Psychology --Px^ *Health Behavior^ *Life Style.

Author: Chapleski EE, Gelfand DE, Pugh KE
Title: Great lakes American Indian elders and service utilization: Does residence matter?
Journal: Journal of Applied Gerontology.
Year: 1997
Volume: 16

Number:	3
Pages:	333-354
Abstract:	Discussions about service usage by older individuals often center around the relative importance of need and knowledge variables. The impact of these variables among minority elderly remains a matter of debate. This article examines service usage among a sample of urban, rural, and reservation-based eastern Great Lakes American Indian elders. Issues of availability, awareness, acceptability, accessibility, and need are examined through both a survey of 309 respondents and a small sample of service providers. Regression results show predictors of use vary by type of service. Reservation residence and need characteristics predict in-home and preventive health service use. Being female, older, having knowledge of services, and problems with Instrumental Activities of Daily Living (IADL) predicts in-home service use. Service providers' perceptions suggest issues of trust, past experiences, and cultural acceptability need to be explored more intensely in efforts to explain service usage among American Indians and other ethnic and racial groups.
Keywords:	<Major Medical Term> Demography^Elderly Care^Health Care Utilization/ <Minor Medical Term> Adult^Aged^American Indian^Article^Cultural Anthropology^Daily Life Activity^Disability^Ethnic Group^Female^Health Care Availability^Health Care Need^Health Survey^Home Care^Human^Major Clinical Study^Male^Minority Group^Preventive Health Service^Race Difference^United States.

Author:	Clark DO
Title:	Volume and distribution of AAA sponsored services and service use by disabled older adults
Journal:	Home Health Care Serv Q
Year:	1993
Volume:	14
Number:	2-3
Pages:	175-198
Abstract:	Recent studies have suggested that a lower availability and lesser range of formal long term care services may, in part, explain lower rates of formal service use by older rural as compared to older urban residents. Studies of residence differences in the availability of Area Agency on Aging sponsored services, however, have not adjusted measures according to the size of service populations. This study assesses the volume of personal and home care services available to a national sample of disabled older persons through Area Agencies on Aging (AAA) and shows that nonmetropolitan respondents have a greater volume of AAA sponsored services available per capita than metropolitan respondents. Moreover, in general, per capita service availability ratios are not associated with formal service use over a two-year period among 2,800 disabled noninstitutionalized older adults. The importance of gathering data on services available at the community level in order to more effectively assess the role of social context in service use is discussed.
Keywords:	Aged^ Data Collection^ Health Services Needs and Demand --Statistical and Numerical Data --SN^ Home Care Services --Utilization --UT^ Logistic Models^ Long-Term Care --Utilization --UT^ Residence Characteristics^ Rural Health^ United States^ Urban Health/ *Frail Elderly --Statistical and Numerical Data --SN^ *Health Services Accessibility --Statistical and Numerical Data --SN^ *Home Care Services --Supply and Distribution --SD^ *Long-Term Care --Statistical and Numerical Data --SN.

Author:	Colantonio A, Cohen C, Corlett S
Title:	Support needs of elderly caregivers of persons with dementia
Journal:	Canadian Journal on Aging
Year:	1998
Volume:	17
Number:	3
Pages:	330-345
Abstract:	The aim of this paper was (1) to document the extent to which elderly caregivers of persons with dementia engage in self-help/mutual aid activities such as groups and telephone support and (2) to document the extent to which non-users want to participate in this form of support.

Caregivers aged 60 years of age and older were recruited from the Alzheimer's Society of Metropolitan Toronto Wandering Persons Registry. Data from telephone interviews (n = 84) from this multicultural sample showed that 21 per cent of subjects used support groups and 26 per cent of non attenders wanted to be part of a support group. Only 8 per cent of subjects utilized telephone support services yet 57 per cent of non-users wanted to use this service. We also report on other means of support such as use of computer networks and newsletters. The implications of this research for seniors will be discussed in light of these identified needs and barriers to participation.

Keywords: Author Keywords: Elderly/ Caregiving/ Self-Help/ Dementia.

Author: Crets S
Title: Determinants of the use of ambulant social care by the elderly
Journal: Social Science & Medicine
Year: 1996
Volume: 43
Number: 12
Pages: 1709-1720
Abstract: Policy makers and scientists are increasingly concerned with the use of formal care services by the elderly. This article demonstrates that there are three different care systems: the informal, the commercial and the formal (public) system. In terms of prevalence, the formal system is the least important one. By means of a cross-sectional sample of the elderly population of Antwerp, an Andersen model is estimated to explain the use of formal services. This model shows that the level of functional capacity of the elderly is a crucial factor. Yet, the effect this has on the use of care varies according to the different living arrangements. "Need" as such, therefore, does not determine the use of formal services, since its effect is modified by the different alternatives that are at the disposal of the elderly person (living arrangements, informal care, income, availability of commercial alternatives). in the conclusion it is argued that the Andersen model, in a cross-sectional design, is inadequate to construct a theory concerning the use of care services.
Keywords: Author Keywords Elderly/ Utilization/ Determinants/ Social Services/ Belgium

Author: Cuijpers P
Title: Psychological outreach programmes for the depressed elderly: a meta-analysis of effects and dropout
Journal: International Journal Of Geriatric Psychiatry
Year: 1998
Volume: 13
Number: 1
Pages: 41-48
Abstract: Utilization of psychiatric services by depressed elderly is low compared to younger adults. Outreach programmes in which treatment is actively offered to depressed elderly in the community can be used to improve access of these elderly to mental health care. In this study a meta-analysis is carried out to study the effectiveness of these outreach programmes. Fourteen studies were found in which psychological treatment is offered to depressed elderly in the community. The effect size is large (0.77), comparable to the effect sizes found in younger adults. In a regression analysis it was found that the effect sizes of cognitive behavioural therapies are larger than those of other therapies. The mean dropout rate is 23%. It was also found that dropout was larger in group interventions, in cognitive behavioural therapies, in interventions with more female participants and in interventions offering more sessions. Analyses of the dropout rate should be part of every meta-analysis of intervention studies. Future research is needed to examine the differences between depressed persons who volunteer for a research programme and persons participating in an outreach programme. It is also necessary to examine if outreach programmes reach depressed persons who otherwise would not have sought help.
Keywords: Author Keywords: Depression/ Elderly/ Outreach Programmes/ Meta-Analysis/ Dropout.

Author: Culler SD, Parchman ML, Przybylski M
Title: Factors related to potentially preventable hospitalizations among the elderly
Journal: Medical Care
Year: 1998 Jun
Volume: 36
Number: 6
Pages: 804-817
Abstract: OBJECTIVES: The authors examine whether the odds of having a hospitalization associated with an ambulatory care sensitive condition can be explained by observed differences in a Medicare beneficiary's predisposing, enabling, and need characteristics. METHODS: A multivariate cross-sectional analysis of Medicare's administrative inpatient claims data and the Medicare Current Beneficiary Survey was conducted on a nationally representative sample of Medicare beneficiaries. Each Medicare beneficiary's hospital utilization was classified into one of three categories: (1) no hospital admissions; (2) hospitalized, but no hospitalizations for a potentially preventable condition; and (3) at least one potentially preventable hospitalization. RESULTS: The results suggest that being older, black, or living either in a core standard metropolitan statistical area (SMSA) county or a rural county significantly increases the odds of a preventable hospitalization, whereas having attended college, or having only Medicare insurance coverage reduces the odds of a preventable hospitalization. Further, those individuals who assess their health status as poor, have had coronary heart disease, a myocardial infarction, or diabetes, and required assistance with two or more of the six basic activities of daily living are at a greater risk of a preventable hospitalization. CONCLUSIONS: Policy efforts aimed at reducing the number of preventable hospitalizations among the elderly should address the complex health care delivery needs of those Medicare beneficiaries who have special health care needs because they are very old, black, live in core SMSA or rural counties, have poor overall health status, and have physical limitations. Efforts to reduce the number of Medicare beneficiaries who experience a preventable hospitalization may be cost-effective as these beneficiaries may account for up to 17.4% of Medicare's reimbursement for inpatient, outpatient, and physician services in our data set.
Keywords: <Minor> Activities Of Daily Living^ Aged^ Aged, 80 And Over^ Ambulatory Care^ Causality^ Cross-Sectional Studies^ Health Services Needs And Demand^ Insurance Claim Review --Statistical And Numerical Data --Sn^ Logistic Models^ Multivariate Analysis^ Odds Ratio^ Small-Area Analysis^ United States --Epidemiology --Ep^ Utilization Review/ <Major> *Health Services Misuse --Statistical And Numerical Data --Sn^ *Medicare --Utilization --Ut^ *Patient Admission --Statistical And Numerical Data --Sn.

Author: Decoster C, Roos NP, Carriere KC, Peterson S
Title: Inappropriate hospital use by patients receiving care for medical conditions: targeting utilization review
Journal: Canadian Medical Association Journal
Year: 1997
Volume: 157
Number: 7
Pages: 889-896
Abstract: Objective: To describe characteristics associated with inappropriate hospital use by patients in Manitoba in order to help target concurrent utilization review. Utilization review was developed to reduce inappropriate hospital use but can be a very resource-intensive process. Design: Retrospective chart review of a sample of adult patients who received care for medical conditions in a sample of Manitoba hospitals during the fiscal year 1993-94; assessment of patients at admission and for each day of stay with the use of a standardized set of objective, nondiagnosis-based criteria (InterQual). Patients: A total of 3904 patients receiving care at 26 hospitals. Outcome measures: Acute (appropriate) and nonacute (inappropriate) admissions and days of stay for adult patients receiving care for medical conditions. Results: After 1 week, 53.2% of patients assessed as needing acute care at admission no longer required acute care. Patients 75 years of age or older consumed more than 50% of the days of stay, and 74.8% of these days of stay were inappropriate. Four diagnostic categories accounted for almost 60% of admissions and days, and more than 50% of those days of stay were inappropriate. Patients admitted through the emergency department were more likely to require acute 1 care (60.9%)

than others (41.7%). Patients who were Treaty Indians had a higher proportion of days of stay requiring acute care than others (45.9% v. 32.8%). Patients' income and day of the week on admission (weekday v. weekend) were not predictive factors of inappropriate use. Conclusion: Rather than conducting a utilization review for every patient, hospitals might garner more information by targeting patients receiving care for medical conditions with stays longer than 1 week, patients with nervous system, circulatory, respiratory or digestive diagnoses, elderly patients and patients not admitted through the emergency department.

Author:	Delgado M, Tennstedt S
Title:	Making the case for culturally appropriate community services: Puerto Rican elders and their caregivers
Journal:	Health and Social Work
Year:	1997
Volume:	22
Number:	2
Pages:	246-255
Abstract:	Examined the caregiving arrangements for a population of disabled Puerto Rican elders. Two-stage interviews were conducted by telephone with a sample of 591 Puerto Ricans aged 60 and older in Springfield, Massachusetts. In the first stage, respondents were screened for functional disability with measures used in the 1984 and 1986 National Longitudinal Study on Aging. The 368 elders who were identified as functionally disabled received more extensive interviews, in which data on their informal caregiving networks, the help these caregivers provided, and the respondents' use of formal long term care services were gathered. Of the 214 disabled elders (aged 60-105, mean age 70.7) with caregivers, 206 provided names of their caregivers. In the second stage, 50-minute telephone interviews were conducted with 194 primary informal caregivers. The elders who were receiving informal care were quite disabled, particularly in instrumental activities of daily living (ADLs), generally lived alone, and perceived their health as fair to poor. Respondents who were more disabled and had female caregivers received the most care. Women were the most frequent caregivers, and daughters and wives were most often identified as the primary caregivers. Caregivers provided a wide range of help with personal and instrumental ADLs. Only 16 percent of the respondents and their caregivers used community long term care services, and none of the caregivers used services, such as respite care, that were designed specifically to help them. The need to use a structural adaptation approach and to develop social services that are culturally sensitive and acceptable to both elders and their caregivers is discussed. (AR) (AgeLine Database, copyright 1998 American Association of Retired Persons, all rights reserved).
Keywords:	United States, Older Adults, 60+, Young Old, Old Old, Centenarians, Puerto Ricans, Disabled, Frail Elderly, Care Receivers, Caregivers, Activities Of Daily Living, Instrumental Activities Of Daily Living, Living Arrangements, Community Services, Service Utilization, Respite Care, Supportive Services, Ethnicity.

Author:	Demmler J
Title:	Utilization of specialty mental health organizations by older adults: U.S. National profile
Journal:	Psychiatric Services
Year:	1998
Volume:	49
Number:	8
Pages:	1079-1081
Abstract:	Data from the four most recent biennial inventories of mental health organizations and general hospital mental health services conducted by the U.S. Department of Health and Human Services (1988 through 1994) were used to examine utilization of specialty mental health organizations by older adults. The data show steady inverse trends in utilization rates for inpatient and ambulatory care. The oldest clients (age 75 and older) had both the highest percentage decrease in use of inpatient services and the highest percentage increase in use of ambulatory services. The expected growth of the older adult population will challenge the ability of systems of care to maintain or increase the rate of ambulatory mental health care.
Keywords:	<Major Medical Term> Mental Health Care/ <Minor Medical Term> Health Care

Author: Culler SD, Parchman ML, Przybylski M
Title: Factors related to potentially preventable hospitalizations among the elderly
Journal: Medical Care
Year: 1998 Jun
Volume: 36
Number: 6
Pages: 804-817
Abstract: OBJECTIVES: The authors examine whether the odds of having a hospitalization associated with an ambulatory care sensitive condition can be explained by observed differences in a Medicare beneficiary's predisposing, enabling, and need characteristics. METHODS: A multivariate cross-sectional analysis of Medicare's administrative inpatient claims data and the Medicare Current Beneficiary Survey was conducted on a nationally representative sample of Medicare beneficiaries. Each Medicare beneficiary's hospital utilization was classified into one of three categories: (1) no hospital admissions; (2) hospitalized, but no hospitalizations for a potentially preventable condition; and (3) at least one potentially preventable hospitalization. RESULTS: The results suggest that being older, black, or living either in a core standard metropolitan statistical area (SMSA) county or a rural county significantly increases the odds of a preventable hospitalization, whereas having attended college, or having only Medicare insurance coverage reduces the odds of a preventable hospitalization. Further, those individuals who assess their health status as poor, have had coronary heart disease, a myocardial infarction, or diabetes, and required assistance with two or more of the six basic activities of daily living are at a greater risk of a preventable hospitalization. CONCLUSIONS: Policy efforts aimed at reducing the number of preventable hospitalizations among the elderly should address the complex health care delivery needs of those Medicare beneficiaries who have special health care needs because they are very old, black, live in core SMSA or rural counties, have poor overall health status, and have physical limitations. Efforts to reduce the number of Medicare beneficiaries who experience a preventable hospitalization may be cost-effective as these beneficiaries may account for up to 17.4% of Medicare's reimbursement for inpatient, outpatient, and physician services in our data set.
Keywords: <Minor> Activities Of Daily Living^ Aged^ Aged, 80 And Over^ Ambulatory Care^ Causality^ Cross-Sectional Studies^ Health Services Needs And Demand^ Insurance Claim Review --Statistical And Numerical Data --Sn^ Logistic Models^ Multivariate Analysis^ Odds Ratio^ Small-Area Analysis^ United States --Epidemiology --Ep^ Utilization Review/ <Major> *Health Services Misuse --Statistical And Numerical Data --Sn^ *Medicare --Utilization --Ut^ *Patient Admission --Statistical And Numerical Data --Sn.

Author: Decoster C, Roos NP, Carriere KC, Peterson S
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Journal: Canadian Medical Association Journal
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Volume: 157
Number: 7
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Abstract: Objective: To describe characteristics associated with inappropriate hospital use by patients in Manitoba in order to help target concurrent utilization review. Utilization review was developed to reduce inappropriate hospital use but can be a very resource-intensive process. Design: Retrospective chart review of a sample of adult patients who received care for medical conditions in a sample of Manitoba hospitals during the fiscal year 1993-94; assessment of patients at admission and for each day of stay with the use of a standardized set of objective, nondiagnosis-based criteria (InterQual). Patients: A total of 3904 patients receiving care at 26 hospitals. Outcome measures: Acute (appropriate) and nonacute (inappropriate) admissions and days of stay for adult patients receiving care for medical conditions. Results: After 1 week, 53.2% of patients assessed as needing acute care at admission no longer required acute care. Patients 75 years of age or older consumed more than 50% of the days of stay, and 74.8% of these days of stay were inappropriate. Four diagnostic categories accounted for almost 60% of admissions and days, and more than 50% of those days of stay were inappropriate. Patients admitted through the emergency department were more likely to require acute 1 care (60.9%)

than others (41.7%). Patients who were Treaty Indians had a higher proportion of days of stay requiring acute care than others (45.9% v. 32.8%). Patients' income and day of the week on admission (weekday v. weekend) were not predictive factors of inappropriate use. Conclusion: Rather than conducting a utilization review for every patient, hospitals might garner more information by targeting patients receiving care for medical conditions with stays longer than 1 week, patients with nervous system, circulatory, respiratory or digestive diagnoses, elderly patients and patients not admitted through the emergency department.

Author: Delgado M, Tennstedt S

Title: Making the case for culturally appropriate community services: Puerto Rican elders and their caregivers

Journal: Health and Social Work

Year: 1997

Volume: 22

Number: 2

Pages: 246-255

Abstract: Examined the caregiving arrangements for a population of disabled Puerto Rican elders. Two-stage interviews were conducted by telephone with a sample of 591 Puerto Ricans aged 60 and older in Springfield, Massachusetts. In the first stage, respondents were screened for functional disability with measures used in the 1984 and 1986 National Longitudinal Study on Aging. The 368 elders who were identified as functionally disabled received more extensive interviews, in which data on their informal caregiving networks, the help these caregivers provided, and the respondents' use of formal long term care services were gathered. Of the 214 disabled elders (aged 60-105, mean age 70.7) with caregivers, 206 provided names of their caregivers. In the second stage, 50-minute telephone interviews were conducted with 194 primary informal caregivers. The elders who were receiving informal care were quite disabled, particularly in instrumental activities of daily living (ADLs), generally lived alone, and perceived their health as fair to poor. Respondents who were more disabled and had female caregivers received the most care. Women were the most frequent caregivers, and daughters and wives were most often identified as the primary caregivers. Caregivers provided a wide range of help with personal and instrumental ADLs. Only 16 percent of the respondents and their caregivers used community long term care services, and none of the caregivers used services, such as respite care, that were designed specifically to help them. The need to use a structural adaptation approach and to develop social services that are culturally sensitive and acceptable to both elders and their caregivers is discussed. (AR) (AgeLine Database, copyright 1998 American Association of Retired Persons, all rights reserved).

Keywords: United States, Older Adults, 60+, Young Old, Old Old, Centenarians, Puerto Ricans, Disabled, Frail Elderly, Care Receivers, Caregivers, Activities Of Daily Living, Instrumental Activities Of Daily Living, Living Arrangements, Community Services, Service Utilization, Respite Care, Supportive Services, Ethnicity.

Author: Demmler J

Title: Utilization of specialty mental health organizations by older adults: U.S. National profile

Journal: Psychiatric Services

Year: 1998

Volume: 49

Number: 8

Pages: 1079-1081

Abstract: Data from the four most recent biennial inventories of mental health organizations and general hospital mental health services conducted by the U.S. Department of Health and Human Services (1988 through 1994) were used to examine utilization of specialty mental health organizations by older adults. The data show steady inverse trends in utilization rates for inpatient and ambulatory care. The oldest clients (age 75 and older) had both the highest percentage decrease in use of inpatient services and the highest percentage increase in use of ambulatory services. The expected growth of the older adult population will challenge the ability of systems of care to maintain or increase the rate of ambulatory mental health care.

Keywords: <Major Medical Term> Mental Health Care/ <Minor Medical Term> Health Care

Organization^Elderly Care^Health Care Utilization^Hospital Care^Ambulatory Care^Human^Major Clinical Study^Aged^Article.

Author: Dey AN
Title: Characteristics of elderly home health care users: data from the 1994 National Home and Hospice Care Survey
Journal: Advance Data
Year: 1996 Sep 26
Pages: 2791-2812
Abstract: OBJECTIVE: This report presents the demographic characteristics, service utilization, and primary admission diagnosis of elderly current home health care patients and discharges. METHODS: The data used for this report are from the National Center for Health Statistics' 1994 National Home and Hospice Care Survey's (NHHCS) sample of current patients and discharges age 65 years and over. The 1994 NHHCS is the third annual survey of home health care agencies and hospices and their current patients and discharges. RESULTS: The overall results of the survey indicate that the elderly in both the current patient and discharge samples were predominantly women, 75-84 years old, white, non-Hispanic, widowed, and lived in a private residence with their family. For both elderly men and women, the most commonly used home health care service was skilled nursing services and the primary admission diagnosis was heart disease.
Keywords: Activities of Daily Living^ Aged^ Aged, 80 and over^ Data Collection^ Demography^ Health Care Surveys^ Home Care Services --Statistical and Numerical Data --SN^ Hospice Care --Statistical and Numerical Data --SN^ United States --Epidemiology --EP/ *Frail Elderly --Statistical and Numerical Data --SN^ *Home Care Services --Utilization --UT^ *Hospice Care --Utilization --UT.

Author: Dey AN
Title: Characteristics of elderly nursing home residents: data from the 1995 National Nursing Home Survey
Journal: Advance Data
Year: 1997 Jul 2
Pages: 2891-2898
Abstract: OBJECTIVE: This report presents the sociodemographic characteristics, functional dependencies in the activities of daily living (ADL) and instrumental activities of daily living (IADL), dental status, primary admission diagnosis, types of services used, and source of payment of elderly nursing home residents. METHODS: The data used for this report are from the National Center for Health Statistics' 1995 National Nursing Home Survey's (NNHS) sample of current residents age 65 years and above. The 1995 NNHS is the fourth annual survey of nursing homes. The first survey was conducted from August 1973 through April 1974, the second was conducted from May through December 1977, and the third was conducted from August 1985 through January 1986. The 1995 NNHS was conducted from July 1995 through December 1995. RESULTS: The overall results of the survey indicate that elderly nursing home residents were predominantly women, 75 years old and over, white, non-Hispanic, and widowed. A large portion of residents needed assistance in their ADL's and IADL's. A shifting of the primary source of payment to Medicaid occurred among residents who used Medicare as their source of payment at the time of admission.
Keywords: Activities of Daily Living^ Aged^ Aged, 80 and over^ Blacks --Statistical and Numerical Data --SN^ Demography^ Dental Health Surveys^ Diagnosis-Related Groups --Statistical and Numerical Data --SN^ Financing, Personal --Statistical and Numerical Data --SN^ Hispanic Americans --Statistical and Numerical Data --SN^ Inpatients --Classification --CL Inpatients --Statistical and Numerical Data --SN^ Insurance, Health --Statistical and Numerical Data --SN^ Medicaid --Statistical and Numerical Data --SN^ Medicare --Statistical and Numerical Data --SN^ National Center for Health Statistics (U.S.)^ United States --Epidemiology --EP^ Whites --Statistical and Numerical Data --SN/ *Health Care Surveys^ *Nursing Homes --Utilization --UT.

Author: Diwan S, Berger C, Manns EK

Title: Composition of the home care service package: predictors of type, volume, and mix of services provided to poor and frail older people
Journal: Gerontologist
Year: 1997
Volume: 37
Number: 2
Pages: 169-181
Abstract: Examined the patterns of home service prescription to poor and frail older adults in a Medicaid waiver program. Case records for 270 active enrollees aged 55-99 (mean age 75.5) of the Community Care Services Program in Georgia were reviewed to determine age, race, gender, marital status, income, informal assistance, medical status, and the plan of care for each individual. Separate logistic regressions were used to examine possible predictors of receiving each of the three health or social services: nursing, home health or personal care, and homemaker. Ordinary least squares regression was used to analyze the predictors of the volume of services prescribed. The most frequently prescribed service combinations were nursing, home health, and homemaker; homemaker only; nursing and home health; nursing and homemaker; and nurse only. Across the service combinations, living alone increased the odds of receiving social services such as a homemaker, whereas declining primary activities of daily living function increased the odds of receiving health services such as a home health aide. Data indicate that users of in-home care are a diverse group who need a variety of services of varying combinations and frequencies to help them stay in the community. Thus, flexibility in determining service packages will continue to remain an important feature of long term care programs. (AR) (AgeLine Database, copyright 1997 American Association of Retired Persons, all rights reserved).
Keywords: United States, Older Adults, Georgia, 55+, Middle Aged, Young Old, Old Old, Medicaid, Frail Elderly, Poverty, Waivers, Home Care, Home Health Care, Homemaker Services, Personal Care, Long Term Care, Service Needs, Service Delivery, Service Utilization, Living Arrangements, Functional Ability, Living Alone, Activities Of Daily Living.

Author: Dolan TA, Peek CW, Stuck AE, Beck JC
Title: Functional health and dental service use among older adults
Journal: Journals of Gerontology - Series A Biological Sciences and Medical Sciences
Year: 1998
Volume: 53
Number: 6
Pages: M413-M418
Abstract: Background. Although socioeconomic barriers to receiving adequate dental care have been well documented, physical frailty as a risk factor for not visiting the dentist has not been fully explored. This study prospectively examines the relationship between functional health and dental service use, taking into account sociodemographic characteristics, general and dental health status, and prior dental utilization behavior. Methods. Data from a randomized trial of a comprehensive geriatric assessment and prevention program in community-dwelling adults age 75+ years living in Santa Monica, CA, collected between 1988 and 1993, were analyzed. A series of discrete- time proportional hazards models were used to assess the effects of functional status, sociodemographic characteristics, and general health and dental health measures on dental service use. Results. Functional status was negatively associated with dental service use, and the conditional probability of a first visit to the dentist after baseline decreased over time. When additional measures of general health, dental health, and socioeconomic status were introduced, the effect of functional status was mitigated but remained significant. In the most fully specified model, which took dental visitation behavior prior to the beginning of the study into account, the effect of functional limitation remained significant. Conclusions. Even in this relatively well-educated group of older persons with higher than average dental service use, impaired functional status was associated with lower levels of dental service use over time.
Keywords: <Major Medical Term> Dental Care^Health Service/ <Minor Medical Term> Socioeconomics^Health Status^Functional Assessment^Self Care^Mouth Disease^Mouth Hygiene^Dental Caries^Periodontal Disease^Human^Male^Female^Major Clinical Study^Aged^Adult^Article^Priority Journal.

Author:	Dorfman LT, Berlin KL, Holmes CA
Title:	Attitudes toward service use among wife caregivers of frail older veterans
Journal:	Social Work in Health Care
Year:	1998
Volume:	27
Number:	4
Pages:	39-64
Abstract:	This study investigated (a) attitudes toward service use among wife caregivers of frail older veterans; and (b) the relationship between those attitudes and service utilization by the wives. The study focused on three sets of attitudinal variables: attitudes towards various kinds of dependencies; individual and family ethos concerning service use; and perceptions of responsibility for care. Respondents were 80 wife caregivers of frail older (age 55+) veterans at a Department of Veterans Affairs Medical Center in a Midwestern state. Most caregivers agreed that it is acceptable to get help with the physical care of the husband and to get help themselves for the emotional strains caused by caregiving. Acceptability of a wife's getting help with the physical care of her husband was a positive predictor of number of services ever used and frequency of in-home service use. Wives' view that help from outside agencies should be used only as a last resort was the strongest and most consistent negative predictor of both number of services ever used and frequency of service use.
Keywords:	<Minor> Aged^ Community Health Services --Utilization --Ut^ Family Health^ Health Care Surveys^ Home Care Services --Utilization --Ut^ Iowa^ Mental Health Services --Utilization --Ut^ Middle Age^ Regression Analysis^ United States^ United States Department Of Veterans Affairs --Statistical And Numerical Data --Sn/ <Major> *Attitude To Health^ *Caregivers --Psychology --Px^ *Frail Elderly^ *Health Services For The Aged --Utilization --Ut^ *Health Services Needs And Demand --Statistical And Numerical Data --Sn^ *Veterans.

Author:	Dorfman LT, Holmes CA, Berlin KL
Title:	Service utilization by wife caregivers of frail older veterans
Journal:	Social Work in Health Care
Year:	1997
Volume:	26
Number:	2
Pages:	33-52
Abstract:	This study investigated patterns and predictors of service utilization among wife caregivers of frail older veterans. The study focused on the following sets of variables: predisposing, enabling, care-receiver need, and caregiver need. Respondents were 80 wife caregivers of frail older (age 55+) veterans at a Department of Veterans Affairs Medical Center (VAMC) in a Midwestern state. Wife caregivers used a mix of VAMC and non-VAMC services. Care-receiver functional status was a significant predictor of both frequency of service use and number of services ever used. Caregivers' perception of service availability and attitude toward service use were the strongest predictors of number of services ever used.
Keywords:	<Minor> Activities Of Daily Living^ Aged^ Community Health Services --Statistical And Numerical Data --Sn Community Health Services --Utilization --Ut^ Health Status^ Home Care Services --Statistical And Numerical Data --Sn^ Home Care Services, Hospital-Based --Utilization --Ut^ Middle Age^ Regression Analysis^ Social Work --Statistical And Numerical Data --Sn^ Spouses/ <Major> *Caregivers^ *Frail Elderly^ *Home Care Services --Utilization --Ut^ *Veterans.

Author:	Douglass C, Fox PJ
Title:	Health care utilization among clients with Alzheimer's disease: Public policy implications from the California Alzheimer's disease diagnostic and treatment center program
Journal:	Journal of Applied Gerontology
Year:	1999
Volume:	18

Number: 1
Pages: 99-121
Abstract: This study examines health and social service utilization among Alzheimer's disease clients of the California Alzheimer's Disease Diagnostic and Treatment Center (ADDTC) Program. This longitudinal study includes a nonrandom sample of program participants from 1988 to 1992 with a diagnosis of Alzheimer's disease (N = 737). Sample characteristics, service utilization rates, and recommendations for service use by ADDTC staff are described. Comparisons of service utilization at baseline assessment and first-annual assessment are made for 10 health and social services-physician services, senior center services, congregate or home-delivered meals, home health care, homemaker-chore services, adult day care, case management, transportation services, residential care, and nursing home care. The influence of ADDTC staff recommendations on subsequent service utilization is assessed and policy implications regarding the efficacy of these recommendations are discussed.
Keywords: <Major Medical Term> Health Care Utilization^Alzheimer Disease^Health Care Policy/ <Minor Medical Term> United States^Social Work^Longitudinal Study^Home Care^Meal^Day Care^ Patient Care^Patient Transport^Residential Care^Nursing Home ^Human ^Male ^Female ^Major Clinical Study^Controlled Study^Aged^Adult^Review.

Author: Doyle A, Masland J
Title: Managed care for the elderly in the united states: outcomes to-date and potential for future growth
Journal: Health Policy
Year: 1997
Volume: 41
Number: Suppl
Pages: S145-S162
Abstract: With the growth in frail elderly populations, health providers and policymakers are exploring new models of caring for and financing the care of disabled elders. This paper reviews innovative care programs directed toward maintaining elders with dependency-producing physical and mental disabilities in home and community-based programs, and toward minimizing the use of acute and long-term institutional care. These programs represent improvements over the traditional fragmented care and financing mechanisms by integrating patient management responsibilities into one provider organization. Some programs integrate only primary and acute care, while others integrate only the continuum of long-term care services. A third set of programs, the key focus of this paper, integrate the full continuum of care from primary through acute and long-term care services. Coupled with service integration is financial consolidation, with control over all sources of funds transferred to the managing provider along with some level of financial risk. Outcomes in terms of lowered acute care utilization and successful site duplication are described, and future prospects for program adoption on a national scale are addressed.
Keywords: Author Keywords: Frail Elderly/ Integrated Care/ Integrated Financing.

Author: Dronska H
Title: Social health maintenance organization
Journal: Journal of Long Term Home Health Care: the PRIDE Institute Journal
Year: 1996
Volume: 15
Number: 2
Pages: 41-45
Abstract: Discusses the role that social/health maintenance organizations (SHMOs) play in managing Medicare-funded health care for disabled and older adults. SHMOs provide a full range of services to older Americans, including chronic care, preventive care, prescriptions, and caregiver support, through a case management approach that is committed to keeping older adults out of institutions, independent, and surrounded by the comfort of their own homes. The SHMO demonstration began in four sites--Minneapolis, Minnesota; Long Beach, California; Portland, Oregon; and Brooklyn, New York--and is being expanded to six additional locations

around the country. The extensive benefits and absence of copayments offered to members of SHMOs tend to induce less healthy individuals to enroll. Thus, inpatient and outpatient physician services and hospitalization benefits greatly exceed those provided by "regular" Medicare. However, the extensive social services and innovative volunteer programs offered by SHMOs help to limit the number of members who receive services and, accordingly, affect the adverse selection of those who do. The utilization and costs of community-based chronic care services in SHMOs are lower than in comparable fee-for-service plans. It is suggested that SHMOs offer the best model for managing Medicare-funded health care.

Keywords: United States, Older Adults, Social Health Maintenance Organizations, Medicare, Managed Care, Frail Elderly, Disabled, Aging In Place, Continuum Of Care, Case Management, Home Care, Home Health Care, Service Delivery, Social Services, Cost Containment, Health Services.

Author: Dulka IM, Yaffe MJ, Goldin B, Rowe WS
Title: The use of senior volunteers in the care of discharged geriatric patients
Journal: Journal of Sociology and Social Welfare
Year: 1999
Volume: 26
Number: 1
Pages: 69-85
Abstract: This article reports on a project that utilized senior volunteers in the role of health advocates for geriatric patients discharged from a hospital. The project was evaluated to determine if healthy and active seniors could make a contribution to the health and social welfare of such discharged elderly persons. The study was conducted in Montreal, Canada and funded by a federal grant from Health Canada. The research collaborators came from a 414-bed secondary cave university-affiliated community hospital, a community social service agency with a mandate to respond to Me needs of its frail elderly constituents, and a university-based research centre that works with health professionals in various settings to develop and evaluate service programs addressing the needs of disadvantaged families and individuals.

Author: Duran-Aydintug C, Torres CC, Flaming KH
Title: The home care allowance program: a change in policy and implications for elder clients
Journal: Home Health Care Serv Q
Year: 1995
Volume: 15
Number: 4
Pages: 19-31
Abstract: This paper reports the findings of a study exploring the effects of cutbacks in Colorado Home Care programs on frail elderly. Results indicate that these cutbacks put the respondents, who live in their own homes but are dependent on relatives, friends, or strangers for assistance in activities of daily living, at risk for long term institutionalization. These households are precursors of a growing healthcare crisis in aging populations where homecare assistance programs must supplement or supplant the resources of a thinning network of kin and friends.
Keywords: Activities of Daily Living^ Adaptation, Psychological^ Aged^ Caregivers --Psychology --PX^ Colorado^ Family^ Frail Elderly^ Health Services Research^ Home Care Services --Legislation and Jurisprudence --LJ Home Care Services --Utilization --UT^ Medicaid^ Population Growth^ Quality of Life^ Sex Factors^ United States/ *Eligibility Determination --Legislation and Jurisprudence --LJ^ *Health Policy^ *Home Care Services --Economics --EC^ *State Health Plans --Legislation and Jurisprudence --LJ.

Author: Eng C, Pedulla J, Eleazer GP, McCann R, Fox N
Title: Program of all-inclusive care for the elderly (PACE): an innovative model of integrated geriatric care and financing
Journal: Journal of the American Geriatrics Society
Year: 1997 Feb

Volume: 45
Number: 2
Pages: 223-232
Abstract: OBJECTIVES: The Program of All-inclusive Care for the Elderly (PACE) is a long-term care delivery and financing innovation. A major goal of PACE is prevention of unnecessary use of hospital and nursing home care. SETTING: PACE serves enrollees in day centers and clinics, their homes, hospitals and nursing homes. Beginning at On Lok in San Francisco, the PACE model has been successfully replicated across the country. In 1995, PACE was fully operational in 11 cities in nine states. PARTICIPANTS: To enroll in PACE, a person must be 55 years of age or older, be certified by the state as eligible for care in a nursing home and live in the program's defined geographical catchment area. PACE participants are ethnically diverse. In 1995, the average PACE enrollee was 80.0 years old and had an average of 7.8 medical conditions and 2.7 dependencies in Activities of Daily Living. A significant number have bladder incontinence (55%). Many enrollees (39%) live alone in the community, and 14% have no means of informal support. INTERVENTION: Medicare and Medicaid waivers allow delivery of services beyond the usual Medicare and Medicaid benefits. The PACE service delivery system is comprehensive, uses an interdisciplinary team for care management, and integrates primary and specialty medical care. PACE receives monthly capitation payments from Medicare and Medicaid. Patients ineligible for Medicaid pay privately. RESULTS: Outcomes of PACE programs have been positive. There has been steady census growth, good consumer satisfaction, reduction in use of institutional care, controlled utilization of medical services, and cost savings to public and private payers of care, including Medicare and Medicaid. However, starting up a PACE program requires substantial time and capital, and the model has not yet attracted large numbers of older middle income adults. CONCLUSION: The growing number of older people in the United States challenges healthcare providers and policy makers alike to provide high quality care in an environment of shrinking resources. The PACE model's comprehensiveness of health and social services, its cost-effective coordinated system of care delivery, and its method of integrated financing have wide applicability and appeal.
Keywords: <Minor> Aged^ Aged, 80 And Over^ Capitation Fee^ Day Care --Organization And Administration --Og^ Frail Elderly^ Health Care Costs^ Health Services For The Aged --Economics --Ec^ Models, Organizational^ Outcome Assessment (Health Care)^ San Francisco/ <Major> *Comprehensive Health Care --Organization And Administration --Og^ *Health Services For The Aged --Organization And Administration --Og^ *Long-Term Care --Organization And Administration --Og.

Author: Ettner SL, Hermann RC
Title: Inpatient psychiatric treatment of elderly medicare beneficiaries
Journal: Psychiatr Serv
Year: 1998 Sep
Volume: 49
Number: 9
Pages: 1173-1179
Abstract: OBJECTIVE: The clinical characteristics and treatment patterns of elderly Medicare beneficiaries hospitalized for psychiatric disorders were examined. METHODS: Administrative data on all elderly Medicare beneficiaries in the United States hospitalized in a nonfederal hospital for a primary psychiatric disorder in 1990-1991 were used to calculate descriptive statistics on case-mix by age group, hospital type (psychiatric hospital, general hospital psychiatric unit, or general hospital nonpsychiatric unit), and primary diagnosis. Length of stay, costs, and discharge destination by hospital type and primary diagnosis were also determined. RESULTS: A total of .6 percent of elderly Medicare beneficiaries were hospitalized for a psychiatric disorder in 1990, accounting for more than 240,000 admissions and $1 billion in Medicare payments. The most common reasons for hospitalization were major depressive disorder (28.1 percent), dementia and other organic disorders (26.8 percent), and substance-related disorders (12.6 percent). Organic disorders were particularly prevalent among the oldest old, accounting for more than half of psychiatric admissions among those 85 and older. A total of 43 percent of the psychiatric admissions were to general hospital nonpsychiatric units, 38 percent to general hospital psychiatric units, and only 19 percent to psychiatric hospitals. Within each diagnostic category, patients admitted to general hospital nonpsychiatric

units had the shortest average lengths of stay and the lowest average costs. Among beneficiaries with organic, affective, and psychotic disorders other than schizophrenia, those admitted to general hospitals had shorter lengths of stay, higher rates of discharge to nursing homes, and lower rates of discharge to self-care than those treated in psychiatric hospitals. CONCLUSIONS: Case-mix-adjusted treatment patterns varied substantially across hospital types, due to differences in either illness severity or treatment styles.

Keywords: <Minor> Age Distribution^ Aged^ Aged, 80 And Over^ Databases, Factual --Statistical And Numerical Data --Sn^ Diagnosis-Related Groups --Economics --Ec Diagnosis-Related Groups --Statistical And Numerical Data --Sn^ Geriatric Psychiatry --Economics --Ec Geriatric Psychiatry --Statistical And Numerical Data --Sn^ Hospital Costs --Statistical And Numerical Data --Sn^ Hospitalization --Economics --Ec Hospitalization --Statistical And Numerical Data --Sn^ Hospitals, Psychiatric --Economics --Ec Hospitals, Psychiatric --Statistical And Numerical Data --Sn^ Mental Disorders --Epidemiology --Ep Mental Disorders --Therapy --Th^ Patient Discharge --Statistical And Numerical Data --Sn^ Psychiatric Department, Hospital --Economics --Ec Psychiatric Department, Hospital --Statistical And Numerical Data --Sn^ Retrospective Studies^ United States --Epidemiology --Ep/ <Major> *Diagnosis-Related Groups^ *Geriatric Psychiatry^ *Hospitals, Psychiatric --Utilization --Ut^ *Medicare --Statistical And Numerical Data --Sn^ *Mental Disorders --Economics --Ec^ *Psychiatric Department, Hospital --Utilization --Ut.

Author: Evenson KR, Rosamond WD, Luepker RV
Title: Predictors of outpatient cardiac rehabilitation utilization: the Minnesota heart surgery registry
Journal: J Cardiopulm Rehabil
Year: 1998 May-Jun
Volume: 18
Number: 3
Pages: 192-198
Abstract: BACKGROUND: A significant proportion of eligible patients do not participate in cardiac rehabilitation. The purpose of this study was to document patterns of outpatient cardiac rehabilitation use and identify factors predicting its use. METHODS: The Acute Myocardial Infarction Registry of the Minnesota Heart Survey enrolled 3,841 patients admitted on suspicion of acute myocardial infarction (MI) to the coronary care units at six Minneapolis-St. Paul metropolitan hospitals. Participants were contacted 1 year after index hospitalization and asked if they participated in cardiac rehabilitation since discharge. RESULTS: Among those discharged with a MI, 47% participated in outpatient cardiac rehabilitation or an exercise program at an exercise facility, home, or both during the 1-year follow-up period. Among those discharged with angina, 21% attended cardiac rehabilitation. Usage increased when cardiac revascularization procedures were performed during the index hospitalization. Women with an angina or MI diagnosis were significantly less likely to use cardiac rehabilitation than men. Older patients were also less likely to use rehabilitation, with gender difference persisting across age strata. As education increased, cardiac rehabilitation utilization increased. Those not employed were less likely to use cardiac rehabilitation services. The strongest independent predictors of cardiac rehabilitation utilization were age and revascularization procedures (coronary artery bypass grafting or coronary angioplasty), simultaneously adjusting for demographic information, and cardiovascular disease risk factors. CONCLUSIONS: These data suggest that there is a disparity in cardiac rehabilitation utilization with lower rates among women, older individuals, those with less education, and the unemployed.
Keywords: <Minor> Adult^ Aged^ Aged, 80 And Over^ Educational Status^ Employment^ Logistic Models^ Middle Age^ Prospective Studies^ Risk Factors/ <Major> *Exercise Therapy^ *Myocardial Infarction --Rehabilitation --Rh.

Author: Experton B, Li Z,Branch LG, Ozminkowski RJ, Mellon-Lacey DM
Title: The impact of payor/provider type on health care use and expenditures among the frail elderly
Journal: American Journal of Public Health
Year: 1997 Feb
Volume: 87
Number: 2

Pages: 210-216
Abstract: OBJECTIVES: This study examined whether health care expenditures and usage by the frail elderly differ under three payor/provider types: Medicare fee for service, Medicare health maintenance organization (HMO), and dual Medicare-Medicaid enrollment. METHODS: In-home interviews were conducted among 450 frail elderly patients of a San Diego, Calif, health care system. Cost and use data were collected from providers. RESULTS: Analyses revealed no difference in total expenditures between fee-for-service and HMO enrollees, but Medicare-Medicaid beneficiaries' expenditures were 46.8% higher than those for HMO enrollees and 52.2% higher than those for the fee-for-service group. Fee-for-service participants were less than half as likely as HMO enrollees to have two or more hospital admissions, but hospital usage rates between those two payor/provider groups did not differ. Not were there payor/provider differences in access to home health care, but HMO home health care users received significantly fewer services than the others. CONCLUSIONS: The care provided to these HMO beneficiaries resulted in a combination of restricted home health use and higher multiple hospitalizations. This raises compelling questions for future research. For the dually enrolled, stronger cost containment may be required.
Keywords: <Minor> Activities Of Daily Living^ Aged^ Aged, 80 And Over^ Analysis Of Variance^ California^ Fee-For-Service Plans --Economics --Ec^ Health Maintenance Organizations --Economics --Ec^ Health Services For The Aged --Utilization --Ut^ Health Status^ Home Care Services --Utilization --Ut^ Medicaid --Economics --Ec^ Medicare --Econ Omics --Ec^ United States/ <Major> *Frail Elderly^ *Health Expenditures --Statistical And Numerical Data --Sn^ *Health Services For The Aged --Economics --Ec.

Author: Experton B, Ozminkowski RJ, Pearlman DN, Li Z, Thompson S
Title: How does managed care manage the frail elderly? The case of hospital readmissions in fee-for-service versus HMO systems
Journal: American Journal of Preventive Medicine
Year: 1999
Volume: 16
Number: 3
Pages: 163-172

Replicated? *

Abstract: Objectives: This study examined whether hospital readmissions varied among the frail elderly in managed care versus fee-for-service (FFS) systems. Setting Random sample of 450 patients, aged 65 and over, from a large vertically integrated health and care system in San Diego, California. Participants were receiving physician-authorized Participants: home health and survived and 18-month follow-up period. Main Outcomes Measures: Multiple logistic regression analyses were used to conduct comparisons of readmissions and preventable readmissions by plan type. Two methods to identify preventable readmissions were developed, one based on a computerized algorithm of service use patterns, and another based on blind clinical review. Results: The odds of having a preventable hospital readmission within 90 days of an index admission were 3.51 (P = 0.06) to 5.82 (P = 0.02) times as high for Medicare HMO enrollees compared to Medicare FFS participants, depending on the method used to assess preventability. Readmission patterns were similar for Medicare HMO enrollees and FFS study participants dually enrolled in Medicare and Medicaid. Conclusion: In this group of frail elderly Medicare beneficiaries, those enrolled in an HMO were more likely to have a preventable hospital readmission than those receiving care under FFS. These results suggest that policies promoting stringent approaches to utilization control (e.g., early hospital discharge, reduced levels of post-acute care, and restricted use of home health services) may be problematic for the frail elderly.

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Keywords: <Major Medical Term> Managed Care^Elderly Care/ <Minor Medical Term> Aging^Hospital Admission^Health Maintenance Organization^Medical Fee^Health Care System^Regression Analysis^Medicare^Hospitalization^Health Care Utilization^Health Service^Article.

Author: Farran CJ, Horton-Deutsch SL, Fiedler R, Scott C
Title: Psychiatric home care for the elderly
Journal: Home Health Care Serv Q
Year: 1997

Volume: 16
Number: 1-2
Pages: 77-92
Abstract: This study summarizes descriptive information concerning an existing psychiatric home care service and lays the foundation for more sophisticated studies of elderly depressed persons who receive this type of long term care. Using existing medical record data, the demographic and clinical characteristics of the elderly patients using a multi-site home health care service are summarized, including: (1) their functional/psychiatric status, (2) their length of stay, (3) caregiver availability, (4) scope of multidisciplinary interventions provided, and (5) reasons for discharge. Prospective research of elderly persons receiving psychiatric home care is needed in the future.
Keywords: Activities of Daily Living^ Aged^ Caregivers --Psychology --PX^ Chicago^ Demography^ Depression --Epidemiology --EP^ Hospitalization^ Middle Age^ Prevalence^ Psychiatric Nursing^ Retrospective Studies/ *Depression --Nursing --NU^ *Frail Elderly --Psychology --PX^ *Home Care Services, Hospital-Based --Utilization --UT^ *Homebound Persons --Psychology --PX^ *Mental Health Services --Utilization --UT.

Author: Feldman PH, Latimer E, Davidson H
Title: Medicaid-funded home care for the frail elderly and disabled: evaluating the cost savings and outcomes of a service delivery form
Journal: Health Services Research
Year: 1996
Volume: 31
Number: 4
Pages: 489-508
Abstract: Examined the impact of New York City's cluster care Medicaid demonstration on home care costs and selected client outcomes. Cluster care introduced shared-aide services at public and private senior housing sites as an alternative to the city's traditional one-on-one attendant care system. A pretest-posttest design was used to compare 229 clients at the first seven demonstration sites to 175 clients at four comparison sites. Data were collected from client interviews conducted prior to implementation and again 16 months later, Medicaid claims records, home attendant payroll files, and vendor agency records. The effects of cluster care on functional status, depression, hours of home care, and costs were estimated using linear regression to analyze pre- and postintervention data. Clients at cluster care sites used on average 6 fewer hours of home care per week than clients at comparison sites, and cluster care reduced costs by approximately 10 percent. Most savings were achieved among clients with 5-10 activity of daily living (ADL)/instrumental ADL (IADL) limitations at baseline. Clients at cluster care sites who started out with fewer than five limitations appeared to decline somewhat more slowly than similarly impaired clients at comparison sites, while those with more than five ADL/IADLs tended to decline more rapidly. However, this difference was small: less than one limitation per year. Cluster care was associated with a significant decline in satisfaction, but was unrelated to depressive symptoms.
Keywords: United States, Older Adults, Medicaid, New York, Frail Elderly, Disabled, Home Care, Home Health Care, Service Delivery, Program Evaluation, Cost Effectiveness, Outcomes, Longitudinal Study, Functional Ability, Activities Of Daily Living, Instrumental Activities Of Daily Living, Depression, Satisfaction, Service Utilization, Loss Of Function.

Author: Fillit H, Knopman D, Cummings J, Appel F
Title: Opportunities for improving managed care for individuals with dementia: Part 1 - The issues
Journal: American Journal of Managed Care
Year: 1999
Volume: 5
Number: 3
Pages: 309-315
Abstract: In this first part of a two-part article, we review the prevalence of, costs associated with, and treatments for Alzheimer's disease and related dementias, a leading cause of disability in the

elderly. New, innovative, and costly drugs to combat dementia are being introduced, causing pharmacy costs to rise. These new drugs, however, may reduce overall medical costs and improve the quality of life of patients with dementia and their caregivers. Issues of cost, excessive service utilization, and quality of life will have significant impact on managed care organizations in the near future as the rapidly aging population experiences significant disability and illness related to dementia. In the second part of this article, we describe the framework for a disease management program for patients with dementia, similar to programs in existence for diabetes and other chronic diseases, that could enable managed care organizations to effectively care for these patients.

Keywords: <Major Drug Term> Cholinesterase Inhibitor --Drug Therapy --Dt^Cholinesterase Inhibitor --Pharmacoeconomics --Pe/ <Minor Drug Term> Tacrine --Drug Therapy --Dt^Tacrine --Pharmacoeconomics --Pe^Rivastigmine --Drug Therapy --Dt^Rivastigmine --Pharmacoeconomics --Pe^Donepezil --Drug Therapy --Dt^Donepezil --Pharmacoeconomics --Pe^Metrifonate --Drug Therapy --Dt^Metrifonate --Pharmacoeconomics --Pe^Alpha Tocopherol --Drug Therapy --Dt^Alpha Tocopherol --Pharmacoeconomics --Pe^Selegiline --Drug Therapy --Dt^Selegiline --Pharmacoeconomics --Pe^Estrogen --Drug Therapy --Dt^Estrogen --Pharmacoeconomics --Pe^Nonsteroid Antiinflammatory Agent --Drug Therapy --Dt^Nonsteroid Antiinflammatory Agent --Pharmacoeconomics --Pe/ <Major Medical Term> Dementia --Disease Management --Dm^Alzheimer Disease --Disease Management --Dm^Alzheimer Disease --Drug Therapy --Dt/ <Minor Medical Term> Health Care Cost^Health Economics^Drug Cost^Quality Of Life^Managed Care^Health Care Delivery^Patient Care^Health Care Utilization^Early Diagnosis^Human^Aged^Review^Priority Journal.

Author: Fillit HM, Hill J, Picariello G, Warburton S
Title: How the principles of geriatric assessment are shaping managed care
Journal: Geriatrics
Year: 1998 Apr
Volume: 53
Number: 4
Pages: 76-8, 81-2, 88-9; quiz 90
Abstract: In traditional geriatric medicine, comprehensive assessment is considered crucial to the care of frail older patients. The principles of geriatric assessment--identifying high-risk patients and targeting them for preventive interventions--are also practiced by managed care organizations (MCOs). Self-reported health surveys and administrative data are two methods used by MCOs to identify members at high risk for adverse health outcomes and functional decline who may benefit from geriatric case management. For a successful partnership with primary care physicians, it is very important that geriatric care managers should be knowledgeable in the principles of geriatric medicine.
Keywords: <Minor> Activities Of Daily Living^ Aged^ Case Management^ Family Practice^ Health Status Indicators^ Managed Care Programs --Organization And Administration --Og^ United States/ <Major> *Frail Elderly --Statistical And Numerical Data --Sn^ *Geriatric Assessment^ *Managed Care Programs --Utilization --Ut^ *Medicare Part B --Utilization --Ut^ *Risk Assessment.

Author: Flaherty JH, McBride M, Marzouk S, Miller DK, Chien N, Hanchett M, Leander S, Kaiser FE, Morley JE
Title: Decreasing hospitalization rates for older home care patients with symptoms of depression
Journal: Journal of the American Geriatrics Society
Year: 1998 Jan
Volume: 46
Number: 1
Pages: 31-38
Abstract: OBJECTIVE: To target medically ill older home care patients with symptoms of depression in order to reduce their rate of hospitalization. DESIGN: A case-control study. SETTING: A private, nonprofit home care organization, the Visiting Nurse Association of St. Louis. PARTICIPANTS: Home care patients 65 years of age and older with symptoms of depression who were participants of a Total Quality Management (TQM) intervention (n = 81) were compared with an historical control of home care patients 65 years of age and older with

symptoms of depression (n = 69). INTERVENTION: Utilization of TQM principles to develop a plan including: (a) an educational seminar on depression for home care staff involved in the project; (b) letters to physicians introducing the TQM project; (c) use of the Geriatric Depression Scale (GDS) for screening; (d) recommendation to the primary physician of a home social service (SS) consultation for patients with a GDS of 10 to 14; (e) recommendation to the primary physician of three interventions for patients with a GDS > or = 15: home SS consultation + mental health (MH), or gerontological nurse (GN) consultation + antidepressant medication (a pharmacotherapeutic algorithm sent by facsimile to the primary physician upon request). OUTCOME MEASURES: Hospitalization rates of the control group compared with the TQM intervention group, the degree to which part (e) of the plan was implemented, and the effect this had on hospitalization rates. RESULTS: The TQM intervention patients had a higher mean age than the historical control patients but were not different in percent female, percent white race, percent with a caregiver in the home, functional status, and in 15 of 16 diagnostic categories. Overall, the TQM intervention group had a hospitalization rate of 23.5% (19/81) compared with a rate of 40.6% (28/69) for the historical control group (P = .024). For part (e) of the plan (56/81 patients had a GDS > or = 15), 29/56 (52%) received the recommended SS consultation, 50/56 (89%) received the recommended MH or GN consultation, and 32/56 (57%) received antidepressant medication. One type of intervention did not seem to lower hospitalization rates more than another although having received the MH or GN visits approached significance (12/50, 24%; P = .052) when compared with the control group. CONCLUSIONS: Utilization of TQM principles and the development of an intervention such as the one described here can decrease hospitalization rates for medically ill older home care patients with symptoms of depression.

Keywords: <Minor> Aged^ Aged, 80 And Over^ Antidepressive Agents --Therapeutic Use --Tu^ Case-Control Studies^ Community Health Nursing/ <Major> *Depression --Therapy --Th^ *Home Care Services^ *Hospitalization --Statistical And Numerical Data --Sn^ *Total Quality Management.

Author: Fortinsky RH, Madigan EA
Title: Home care resource consumption and patient outcomes: what are the relationships?
Journal: Home Health Care Serv Q
Year: 1997
Volume: 16
Number: 3
Pages: 55-73
Abstract: This study examined empirical relationships between measures of home care resource consumption and patient outcome measures in a sample of 201 patients who began new episodes of home care with one of ten Medicare-certified home care agencies in Ohio. We found that, while the total volume of home care resource consumption (i.e., total visits and costs) was similar for patients whose episodes ended with discharge at home vs. hospitalization, patients discharged to hospitals consumed home care resources in a much shorter period of time. We also found that resource consumption patterns were very similar regardless of whether patients improved or declined in clinical and functional health during the episode of home care. Results suggest that home care agencies should carefully project both resource consumption and patient outcome targets when negotiating service contracts with managed care organizations, especially for Medicare patients.
Keywords: Adult^ Aged^ Aged, 80 and over^ Cohort Studies^ Health Status Indicators^ Home Care Agencies^ Medicare^ Middle Age^ Ohio^ Patient Discharge^ Prospective Studies^ United States/ *Home Care Services --Utilization --UT^ *Outcome Assessment (Health Care).

Author: Fowler FJ, Machisko FL
Title: Geriatric continuum
Journal: Continuing Care
Year: 1997
Volume: 16
Number: 4
Pages: 23-25

Abstract: Discusses how geriatric networks play a key role in assuring quality, cost-effective health care services to an aging American population. Geriatric networks are attractive to providers, payers, and community residents for many reasons, including their ability to enhance the functional status of the frail elderly, promote or extend the length of time in community-based living, serve as a community resource for families of the frail elderly, enhance the skill base of geriatric care providers, foster development of limited health services, and create an integrated database of service needs and the impact of interventions. One of the more notable benefits of the integrated network is the enrollee's ability to access any available services via one centralized case manager. In addition to the traditional roles of discharge planning and utilization review, the case manager's responsibility in the program is to provide coordination of the patient's care at all levels. Key to the success of developing a geriatric continuum is ensuring total buy-in by all entities of the continuum. This means that providers must be willing to use a centralized database to share information with other members of the continuum.
Keywords: United States, Older Adults, Geriatrics, Managed Care, Continuum Of Care, Case Management, Needs Assessment, Service Delivery, Service Accessibility, Quality Of Care.

Author: Fox PJ
Title: Service use and cost outcomes for persons with alzheimer disease
Journal: Alzheimer Disease & Associated Disorders
Year: 1997
Volume: 11
Number: 6
Pages: 125-134
Abstract: Use of formal services and the associated costs of caring for people with Alzheimer disease and related disorders are expected increase into the next century. This will be driven primarily by general economic inflation, annual increases in health care costs exceeding the inflation rate, increasing numbers of people 85 years of age and older, increases in the expected life span of people al 65 years of age, increasing numbers of people in the nonelderly disabled population receiving Medicare benefits, and changes in the employment structure of the economy. Two sources of data that have been used to estimate formal health and social service utilization and costs are self-report and Medicare claims data. Self-report data are problematic in studies of people with Alzheimer disease because of the demented person's general inability to reliably report on service utilization and the necessary use of proxies to obtain information. Medicare claims are a source for both service utilization and cost data, but limitations in these data result from their use to document reimbursement claims as opposed to accurately reflecting service use histories. Given the lack of reliable and comprehensive service utilization and cost reporting systems, a variety of methods will be required to estimate service use and cost outcome data for people with dementia. These include self-reports of service use and cost, examination of claims records, and service use document abstraction, when feasible.
Keywords: Author Keywords: Alzheimer Disease/ Service Utilization/ Costs Of Care.

Author: Fuchs VR
Title: Health care for the elderly: how much? Who will pay for it?
Journal: Health Affairs
Year: 1999
Volume: 18
Number: 1
Pages: 11-21
Abstract: Health care expenditures on the elderly tend to grow about 4 percent per year more rapidly than the gross domestic product (GDP). This could plunge the nation into a severe economic and social crisis within two decades. This paper describes recent growth in age/sex-specific health care utilization by the elderly and discusses the important role of technology in that growth. It also explores the potential for the elderly to pay for additional care th rough increases in work and savings. Efforts to "save Medicare" wilt prove to be "too little, too late" unless they are embedded in broader policy initiatives that slow the rate of growth of health care spending

and/or increase the income of the elderly.

Author:	Futterman R, Fillit H, Roglieri JL
Title:	Use of ineffective or unsafe medications among members of a Medicare HMO compared to individuals in a Medicare fee-for-service program.
Journal:	American Journal of Managed Care
Year:	1997 Apr
Volume:	3
Number:	4
Pages:	569-575
Abstract:	Adverse drug reactions and inappropriate prescribing practices are an important cause of hospitalization, morbidity, and mortality in the elderly. This study compares prescribing practices within a Medicare risk contract health maintenance organization (HMO) in 1993 and 1994 with prescribing practices for two nationally representative samples of elderly individuals predominantly receiving medical care within the Medicare fee-for-service sector. Information on prescriptions in the fee-for-service sector came from the 1987 National Medical Expenditures Survey (NMES) and the 1992 Medicare Current Beneficiary Survey (MCBS). A total of 20 drugs were studied; these drugs were deemed inappropriate for the elderly because their risk of causing adverse events exceeded their health benefits, according to a consensus panel of experts in geriatrics and pharmacology. One or more of the 20 potentially inappropriate drugs was prescribed to 11.53% of the Medicare HMO members in 1994. These medications were prescribed significantly less often to HMO members in 1994 than to individuals in the fee-for-service sector, based on information from both the 1987 NMES and the 1992 MCBS. Utilization of unsafe or ineffective medications actually decreased with increasing age in the HMO sample, with lowest rates in individuals over the age of 85. However, no relationship between age and medication use was seen in the NMES study, except for individuals over the age of 90 years. The study data support the conclusion that ineffective or unsafe medications were prescribed less often in the Medicare HMO than in national comparison groups. In fact, for the very old, who are most at risk, the use of these medications was much lower in the Medicare HMO than in the Medicare fee-for-service sector. Nevertheless, in 1994, approximately one of every nine members of this Medicare HMO received at least one such medication. Continued efforts and innovative strategies to further reduce the use of unsafe and ineffective drugs among elderly Medicare HMO members are needed.
Keywords:	Aged^ Aged, 80 and over^ Capitation Fee^ Drug Therapy --Adverse Effects --AE^ Health Care Surveys^ Health Maintenance Organizations --Economics --EC^ Medicare --Organization and Administration --OG^ New York City^ Physician's Practice Patterns^ Prescriptions, Drug^ United States/ *Drug Therapy --Standards --ST^ *Drug Utilization Review^ *Fee-for-Service Plans --Standards --ST^ *Health Maintenance Organizations --Standards --ST.

Author:	Gale BJ, Erickson JR
Title:	How race affects health services use by older women
Journal:	Health Care Women International
Year:	1997 May-Jun
Volume:	18
Number:	3
Pages:	221-232
Abstract:	In this study, we examined the relationships among functional health and its correlates in a sample of 101 low-income, older African American (n = 32), White (n = 37), and Hispanic (n = 32) women residing in the southwestern United States. Statistically significant associations were found among age, education, and income and the functional health variables of physical health, independent health, and psychosocial health. Hispanic women reported higher levels of physical health than White. African American women reported higher levels of both independent and psychosocial health than White women. Through regression analysis, physical health was found to be a significant predictor of the need for and use of health services. Little emphasis has been placed on the functional health needs of older women and race in policy and practice.
Keywords:	<Minor> Aged^ Aged, 80 And Over^ Health Services Research^ Middle Age^ Questionnaires^

Regression Analysis/ <Major> *Blacks --Statistical And Numerical Data --Sn^ *Health Services --Utilization --Ut^ *Health Status^ *Hispanic Americans --Statistical And Numerical Data --Sn^ *Whites --Statistical And Numerical Data --Sn^ *Women's Health.

Author: Ganguli M, Fox A, Gilby J, Belle S
Title: Characteristics of rural homebound ~~cider~~ older adults - a community-based study
Journal: Journal of the American Geriatrics Society
Year: 1996
Volume: 44
Number: 4
Pages: 363-370
Abstract: OBJECTIVE: To determine the frequency and characteristics of homebound older adults in a rural community. DESIGN: An epidemiological survey of an age-stratified random community sample. SETTING: The rural mid-Monongahela Valley in Southwestern Pennsylvania. PARTICIPANTS: A total of 878 noninstitutionalized persons aged 68 years and older, fluent in English, and with at least grade 6 education. MEASUREMENTS: The frequency with which subjects left their homes, the Mini-Mental State Examination (MMSE) score, and additional information on demographics, self-reported health problems, health services utilization, IADLs, depression, and social support were measured. RESULTS: 10.3% of the sample was classified as homebound. In univariate analyses, being homebound was found to be associated significantly ($P < .001$) with being older, female, and widowed and with MMSE and IADL impairment, with more depressive symptoms and worse social supports, fair to poor self-rated general health, weight loss, and histories of stroke, angina, arthritis of the spine, and falls. In a multiple regression model, variables associated independently with homebound status were gender (odds ratio = 9.4, 95% confidence interval = 3.6 - 24.9), weight loss (OR = 3.7, CI = 1.7 - 8.2), IADL impairment (OR = 2.6, CI = 2.1 - 3.1), and depressive symptoms (OR = 2.1, CI = 1.3 - 3.2). Being homebound was also associated with recent acute hospitalization and use of home health and social services. CONCLUSIONS: These data provide evidence that homebound older adults have a disproportionate share of morbidity and disability and suggest a sociodemographic and clinical profile to help identify those older people at risk of being or becoming homebound. They also point to the need for home-based health services for the older adults, particularly in medically underserved communities such as rural areas.

Author: Ganz DA, Lamas GA, Orav EJ, Goldman L, Gutierrez PR, Mangione CM
Title: Age-related differences in management of heart disease: a study ofcardiac medication use in an older cohort. Pacemaker selection in the elderly (PASE) investigators
Journal: Journal of the American Geriatrics Society
Year: 1999 Feb
Volume: 47
Number: 2
Pages: 145-150
Abstract: BACKGROUND: Previous studies have suggested suboptimal use of cardiac medications for secondary prevention after myocardial infarction (MI) and atrial fibrillation (AF), especially among older people. OBJECTIVE: To determine whether patients older than 75 years are less likely than those aged 65 to 74 to be prescribed medications with evidence-based indications, including angiotensin-converting enzyme (ACE) inhibitors for left ventricular dysfunction (LVD) and/or diabetes mellitus (DM), aspirin and/or beta-blockers for those with a history of MI, and warfarin for chronic AF. DESIGN: A retrospective cohort study. SETTING: Twenty-nine hospitals, predominantly tertiary-care institutions. PARTICIPANTS: A total of 407 patients randomized to ventricular or dual-chamber pacing from February 26, 1993, to September 30, 1994, in the Pacemaker Selection in the Elderly (PASE) trial. MEASUREMENTS: A review of the patient's medical history and a physical exam at study enrollment, three follow-up timepoints, and a study closeout. RESULTS: Patients older than 75 years with LVD and/or DM were less likely to be prescribed ACE inhibitors (OR = .56 (0.31-1.00)); patients older than 75 with a history of MI were less likely to be taking aspirin (OR = .43 (0.19-.95)), and patients older than 75 with AF were less likely to be prescribed warfarin (OR = .18 (0.05-.61)). Patients older than 75 years of age with any or all of the conditions studied were less likely to be prescribed

indicated medications than those ages 65 to 74 (OR = .35 (0.18-.70)), after controlling for between-group differences in comorbidity, gender, and number of noncardiac medications. CONCLUSION: Older age is a significant independent negative correlate of evidence-based cardiac medication use in this cohort. Causes for this finding need to be explored.

Keywords: <Minor> Aged^ Aged, 80 And Over^ Cardiovascular Agents --Adverse Effects --Ae^ Combined Modality Therapy^ Comorbidity^ Diabetes Mellitus --Drug Therapy --Dt^ Drug Therapy, Combination^ Drug Utilization^ Pacemaker, Artificial^ Retrospective Studies^ Single-Blind Method^ Ventricular Dysfunction, Left --Drug Therapy --Dt/ <Major> *Atrial Fibrillation --Drug Therapy --Dt^ *Cardiovascular Agents --Therapeutic Use --Tu^ *Frail Elderly^ *Myocardial Infarction --Drug Therapy --Dt.

Author: Given BA, Given CW, Stommel M, Lin CS
Title: Predictors of use of secondary carers used by the elderly following hospital discharge
Journal: Journal of Aging Health
Year: 1994 Aug
Volume: 6
Number: 3
Pages: 353-376
Abstract: This research examines how caregiver-patient relationship (female spouses, and adult daughters and daughters-in-law) when cross classified with patient coresidence patterns explains the level of secondary carers' involvement among patients with newly added needs for assistance at home following hospital discharge. Among 196 primary caregivers (104 spouses, 92 daughters and daughters-in-law), patient needs were divided into ADL and mobility limitations, and medical tasks. Secondary carer involvement was categorized into levels differing at two observations: one following discharge and a second 3 months later. Analyses focused on explaining the levels of involvement of secondary carers following hospital discharge and the changes in secondary carers' involvement between the two observations. The baseline and change analyses revealed that caregiver-patient relationship was more important than coresidence patterns or patients' demands in explaining assistance from secondary carers. The implications of these findings on caregivers' reactions and policies regarding home care are explored.
Keywords: Aged^ Chi-Square Distribution^ Data Collection^ Evaluation Studies^ Family^ Health Services Research^ Logistic Models^ Odds Ratio^ Patient Discharge^ United States/ *Caregivers --Statistical and Numerical Data --SN^ *Frail Elderly^ *Home Nursing --Utilization --UT^ *Social Support.

Author: Gordon SM, Dionne RA, Snyder J
Title: Dental fear and anxiety as a barrier to accessing oral health careamong patients with special health care needs
Journal: Spec Care Dentist
Year: 1998 Mar-Apr
Volume: 18
Number: 2
Pages: 88-92
Abstract: Persons with special health care needs due to physical and cognitive impairment can be at increased risk for dental disease which can be attributed to, as well as exacerbate, existing medical conditions. This study assessed the nature of perceived barriers to obtaining oral health care among a special-needs population and the influence of these factors (in particular, fear and anxiety) on utilization of dental services. A total of 27.9% of the sample reported fear/anxiety about dental visits, with approximately half of those reporting to be very nervous or "terrified". There was an inverse relationship between the frequency of dental visits and the proportion of respondents reporting themselves as very nervous or terrified, and between the perception of oral health status and the level of dental fear/anxiety ($P < 0.001$). A large difference was reported between patient preference for pharmacologic modalities for anxiety control and those received at dental visits, with 40% of the youngest age group indicating that they would go to the dentist more frequently if sedation or general anesthesia were offered. The levels of self-reported fear/anxiety and the high proportion of respondents indicating an

unmet need for adjunctive anesthesia services suggest that fear/anxiety acts as a barrier to dental care among this special-needs group which could be ameliorated with greater use of these services.

Keywords: <Minor> Activities Of Daily Living^ Adolescence^ Adult^ Age Factors^ Aged^ Aged, 80 And Over^ Anesthesia, Dental^ Chi-Square Distribution^ Child^ Child, Preschool^ Conscious Sedation^ Mental Retardation --Psychology --Px^ Middle Age^ Patient Satisfaction^ Questionnaires/ <Major> *Dental Anxiety^ *Dental Care For Disabled --Psychology --Px *Dental Care For Disabled --Utilization --Ut^ *Patient Acceptance Of Health Care --Psychology --Px.

Author: Grabbe L, Demi AS, Whittington F, Jones JM, Branch LG, Lambert R
Title: Functional status and the use of formal home care in the year before death
Journal: Journal of Aging and Health
Year: 1995 Aug
Volume: 7
Number: 3
Pages: 339-364
Abstract: Examined the relationship between functional status and the provision of formal home care to persons with chronic illness during their last year of life. Data were obtained from the 1986 National Mortality Followback Survey, a nationally representative sample of 18,733 persons aged 25 and older who died in 1985 and 1986. A survey mailed to informants 6 months after the death occurred obtained information on decedents' health, functional status, and use of health services. A total of 14,728 decedents (mean age 70.4) who had not been institutionalized for at least 11 months during the previous year and for whom a completed survey was available were included in the study. A multivariate, epidemiologic logistic regression model was developed to identify risk factors for formal home care use for the following age groups: under age 65, 65-74, 75-84, and 85 and older. Results indicated that 60 percent of adult decedents in 1986 had experienced some functional impairment in activities of daily living (ADL) during their last year of life, and 50 percent had received some form of home assistance (formal or informal). The primary risk factor for receiving formal home care was level of functional impairment; persons with moderate and severe levels of dysfunction were most likely to receive formal home care. Having two or more family caregivers with greater involvement lowered the use of formal home services, except among persons with severe impairments. Other attributes positively related to use of formal home care included being older, having more health problems, and living in a metropolitan area.

Keywords: United States, Older Adults, Home Care, Home Health Care, Long Term Care, Noninstitutionalized Elderly, Service Utilization, Frail Elderly, Functional Ability, Risk Factors, Models, Under 65, 65+.

Author: Haan MN, Selby JV, Quesenberry CP Jr. Schmittdiel JA, Fireman BH, Rice DP
Title: The impact of aging and chronic disease on use of hospital and outpatient services in a large HMO: 1971-1991
Journal: Journal of the American Geriatrics Society
Year: 1997
Volume: 45
Number: 6
Pages: 667-674
Abstract: OBJECTIVES: To examine overall and diagnosis-specific trends in the use of inpatient and outpatient medical services (1970-1988) among older members of a large HMO. DESIGN: Two cohorts of approximately 3000 persons aged 65 or older in 1971 and 1980 were compared for hospital and outpatient utilization during 9-year follow-up periods (1971-79 and 1980-88). All subjects were evaluated for vital status throughout the follow-up period as well. PARTICIPANTS: All 6057 subjects were members of the Northern California Kaiser Permanente Medical Care Program in 1971 or 1980. The study sample was sex-age stratified (65-69, 70-79, 80+) at baseline. MEASUREMENTS: Data on demographics, outpatient health services utilization, categories of outpatient utilization and disease diagnoses were obtained from membership lists or medical chart review; inpatient utilization, including admitting and discharge diagnosis, length of stay, and number of hospital days was assessed from

computerized hospitalization records. RESULTS: Hospital discharge rates (sex-age adjusted) increased by 12% between cohorts, with the largest increases at the oldest ages. There was a 25% increase among women and a 9% increase among men. Length of stay decreased by 20%. Hospitalization for ischemic heart disease decreased by 17%. Congestive heart failure (CHF) discharge rates (sex-age adjusted) were 92% higher in the 1980-88 cohort. For diagnoses related to nursing home institutionalization and frailty, discharge rates were significantly higher in the 1980-88 cohort: pneumonia (+34%), urinary tract infections (+104%), dehydration (+110%), osteoarthritis (+64%), syncope (+246%), leg cellulitis (+70%). In-hospital survival improved, but overall percent of readmissions also increased by 4%; readmissions for CHF increased by 13% and those for conditions of frailty by 120%. Overall outpatient visits increased by 17%. Use of laboratory tests (+57%) and outpatient surgeries (+99%) increased for all age strata in 1980-88 compared with 1971-79. CONCLUSIONS: While overall outpatient and inpatient utilization has largely decreased over the past 30 years, as a result of economic factors and improved treatments for some major diseases, there has been an increase in utilization among older people. Hospitalization for diagnoses associated with end-stage cardiovascular disease (CHF), musculoskeletal disease, frailty and iatrogenic aspects of institutionalization are clearly increasing substantially. The largest impact of aging on health care may be the result of institutionalization and its sequelae. Improved treatment for cardiovascular disease may also be leading to increased utilization at later stages in the disease process.

Keywords: <Major Medical Term> Aging^Hospitalization/ <Minor Medical Term> Aged^Article^Chronic Disease^Congestive Heart Failure --Epidemiology --Ep^Female^Health Care Utilization^Health Maintenance Organization^Hospital Discharge^Human^Ischemic Heart Disease --Epidemiology --Ep^Major Clinical Study^Male^Outpatient Care^Survival Rate^Treatment Outcome.

Author: Hallfors D, Leutz W, Capitman J, Ritter G
Title: Stability of frailty in the social/health maintenance organization
Journal: Health Care Financing Review
Year: 1994 Summer
Volume: 15
Number: 4
Pages: 105-116
Abstract: Although many long-term care (LTC) programs assume that the disabilities of their frail elderly participants are stable in nature, there has been suggestive evidence to the contrary. This study tests stability of disability among social/health maintenance organization (S/HMO) members who were judged eligible for admission into a nursing home. Identified persons were reassessed quarterly. By the end of 1 year, less than 50 percent were still considered to be nursing home eligible. Logit analysis revealed an increased likelihood of instability for persons who were newly identified as functionally disabled after hospitalization. Policy implications for capitated managed-care programs for the elderly are discussed.
Keywords: Aged^ Data Collection^ Eligibility Determination^ Evaluation Studies^ Health Maintenance Organizations --Statistical and Numerical Data --SN^ Health Services Research^ Insurance, Health, Reimbursement^ Medicare --Statistical and Numerical Data --SN^ Nursing Homes --Utilization --UT^ Probability^ Progressive Patient Care^ United States/ *Frail Elderly --Statistical and Numerical Data --SN^ *Geriatric Assessment^ *Health Maintenance Organizations --Utilization --UT^ *Medicare --Utilization --UT^ *Risk Assessment.

Author: Hamdy RC, Forrest LJ, Moore SW, Cancellaro L
Title: Use of emergency departments by the elderly in rural areas
Journal: Southern Medical Journal
Year: 1997 Jun
Volume: 90
Number: 6
Pages: 616-620
Abstract: Sparse information is available concerning use of emergency departments (EDs) by the elderly in rural areas. We reviewed records of all patients seeking care at EDs of three rural hospitals

during 7 days in October 1991. We found that elderly people did not use EDs in proportion to their numbers in the community (15.2% versus 19.3%). Compared with younger ED patients, more elderly patients required an ambulance (40.8% versus 10.7%), more needed hospitalization (38.4% versus 11.9%), and their ED stays were longer (140 minutes versus 89 minutes). Falls/injuries (18.7%) and cardiac illness (18.1%) were the most frequent reasons for ED visits by the elderly, and relatively few (2.8%) had confusion. More elderly patients arrived during daytime hours than during the night, and more on weekends than weekdays. Also, we found no difference between patients in the 65- to 74-year-old age group and those aged 75 years and older.

Keywords: <Minor> Accidental Falls --Statistical And Numerical Data --Sn^ Adult^ Age Factors^ Aged^ Aged, 80 And Over^ Ambulances --Statistical And Numerical Data --Sn^ Confusion --Epidemiology --Ep^ Diagnosis^ Emergency Service, Hospital --Statistical And Numerical Data --Sn^ Health Services For The Aged --Statistical And Numerical Data --Sn Health Services For The Aged --Utilization --Ut^ Heart Diseases --Epidemiology --Ep^ Hospitalization --Statistical And Numerical Data --Sn^ Length Of Stay --Statistical And Numerical Data --Sn^ Patient Admission --Statistical And Numerical Data --Sn^ Retrospective Studies^ Rural Health Services --Statistical And Numerical Data --Sn^ Tennessee --Epidemiology --Ep^ Time Factors^ Transportation Of Patients --Statistical And Numerical Data --Sn^ Wounds And Injuries --Epidemiology --Ep/ <Major> *Emergency Service, Hospital --Utilization --Ut^ *Rural Health Services --Utilization --Ut.

Author: Hayden MF, Heller T
Title: Support, problem-solving/coping ability, and personal burden of younger and older caregivers of adults with mental retardation
Journal: Ment Retard
Year: 1997 Oct
Volume: 35
Number: 5
Pages: 364-372
Abstract: Relations between service and support utilization, problem-solving/coping strategies, level of personal burden experienced by younger and older caregivers were examined. Overall, there were nodifferences in the number of support services received. However, younger caregivers reported significantly more unmet service needs and rated significantly more of them as a critical or an emergency need. Both groups had highly developed effective problem-solving skills. However, older caregivers were more likely to seek spiritual support and the younger caregivers more apt to mobilize their families to acquire and accept help. Older caregivers experienced significantly less personal burden. Results suggest that younger caregivers are more predisposed toward seeking outside help and have higher expectations of the service system.
Keywords: <Minor> Adult^ Aged^ Aged, 80 And Over^ Family --Psychology --Px^ Mental Retardation --Rehabilitation --Rh^ Middle Age^ Patient Acceptance Of Health Care/ <Major> *Adaptation, Psychological^ *Aging --Psychology --Px^ *Caregivers --Psychology --Px^ *Cost Of Illness^ *Mental Retardation --Psychology --Px^ *Problem Solving^ *Social Support.

Author: Holroyd S, Duryee JJ
Title: Characteristics of persons utilizing a geriatric psychiatry outpatient clinic
Journal: Journal of Geriatric Psychiatry and Neurology
Year: 1997
Volume: 10
Number: 4
Pages: 136-141
Abstract: Mental-health service utilization among elderly people has been shown to be low relative to younger age groups. This study was done to determine the current proportion of elderly persons served in a university-affiliate psychiatry outpatient clinic, and to better characterize elderly patients who receive specialized mental-health care in this setting. The proportion of visits from elderly patients (aged 60 and over) was found to be 16%. Demographic and clinical characteristics of a sample of 140 consecutive geriatric patients evaluated at the clinic were

obtained. The data revealed that the patients had a mean age of 74.7 +/- 7.5 (SD) years, and mere mostly female (72.1%) and white (78.6%). Surprisingly, the age distribution was found to be bell shaped, with a small upper tail. The three most prevalent psychiatric diagnoses were depression (56.4%), dementia (35.7%), and substance use disorder (20%). Overall, 59.3% of geriatric patients had a history of prior psychiatric treatment. Females were significantly more likely than males to have a psychiatric history (69.3% vs. 33.3%, P = .0001). Among patients with a psychiatric history, females were more likely to have a current diagnosis of major depression (P = .0006), while males were more likely to have a current substance use disorder (P = .03). The prevalence of dementia increased with each successive decade above 60, while the occurrence of bipolar and adjustment disorders was confined to younger geriatric patients. Elderly patients receiving psychiatric treatment in the clinic thus formed a heterogeneous group. Gender, age, and presence of a psychiatric history were all associated with differences in prevalence and distribution of various mental disorders in this geriatric psychiatry outpatient clinic.

Author: Hopp FP
Title: Patterns and predictors of formal and informal care among elderly persons living in board and care homes
Journal: Gerontologist
Year: 1999
Volume: 39
Number: 2
Pages: 167-176
Abstract: The purpose of this study was to investigate the patterns and predictors of formal and informal help among a sample of older persons living in board and care homes (N = 617). Formal helpers such as facility staff, service agencies, and community organizations were the most common providers of assistance, particularly for activities of daily living (ADLs; e.g., bathing, dressing, toileting) that required close and continual proximity. Informal helpers such as family members, friends, and other residents were most likely to assist with instrumental ADL (IADL) tasks such as shopping and getting around outside. The need for assistance with ADLs predicted the amount of formal ADL help received by residents, whereas both ADL need and the presence of mental illness predicted the amount of IADL help received from formal sources. In contrast, demographic factors such as gender and race, as well as the frequency of family contact, predicted the amount of informal help with IADL tasks. White residents, women, and those with frequent family contact were among those most likely to receive assistance from informal helpers. The results suggest the need to encourage the provision of informal assistance as well as the need to ensure the availability of sufficient staff and other formal helpers are available to provide formal care in these settings.
Keywords: Author Keywords: Board And Care Facilities/ Long-Term Care/ Formal And Informal Care.

Author: Horgas AL Tsai PF
Title: Analgesic drug prescription and use in cognitively impaired nursinghome residents
Journal: Nursing Research
Year: 1998 Jul-Aug
Volume: 47
Number: 4
Pages: 235-242
Abstract: BACKGROUND: Prior research has documented the high prevalence of pain in elderly adults and the difficulties associated with properly assessing and treating pain in elders with cognitive impairment. OBJECTIVES: To investigate the prescription and administration of analgesic medications to treat pain in cognitively impaired nursing home residents. METHOD: The current sample consisted of 339 nursing home residents (295 women and 44 men) with a mean age of 87 years (range 66-104). Forty-six percent of the sample had diagnosed cognitive impairment, and 55% had at least one diagnosed painful condition. Data for this correlational study were drawn from four nursing homes in Western Pennsylvania. The Multidimensional Observation Scale for Elderly Subjects was used to assess behavioral indicators of cognitive impairment, and chart review was used to obtain demographic, medication, and diagnostic

data. RESULTS: The results indicated that cognitively impaired nursing home residents are prescribed and administered significantly less analgesic medication, both in number and in dosage of pain drugs than their more cognitively intact peers. In multiple regression analyses holding the presence of painful conditions constant, more disoriented and withdrawn residents were prescribed significantly less analgesia by physicians; more disoriented, withdrawn, and functionally impaired residents were administered significantly less analgesia by nursing staff. CONCLUSIONS: The findings highlight the difficulties of assessing pain in cognitively impaired elders and the lack of knowledge among health care providers about effective pain management.

Keywords: <Minor> Activities Of Daily Living^ Aged^ Aged, 80 And Over^ Case-Control Studies^ Cognition Disorders --Diagnosis --Di^ Drug Utilization^ Geriatric Assessment^ Home Nursing^ Pain --Diagnosis --Di^ Pain Measurement^ Pennsylvania^ Prevalence^ Regression Analysis/ <Major> *Analgesics --Therapeutic Use --Tu^ *Cognition Disorders --Complications --Co^ *Pain --Drug Therapy --Dt *Pain --Etiology --Et^ *Prescriptions, Drug --Statistical And Numerical Data --Sn.

Author: Houde SC
Title: Predictors of elders' and family caregivers' use of formal homeservices
Journal: Res Nurs Health
Year: 1998 Dec
Volume: 21
Number: 6
Pages: 533-543
Abstract: The purposes of this study were to examine the characteristics of care recipients, caregivers, and their relationship to predict the use of formal services in the home by functionally impaired elders, and to explore the effect of informal care on formal service use in the home. A secondary analysis of data from the informal caregiver questionnaire and the community survey of the 1989 National Long-Term Care Survey was performed using logistic regression analysis. Results showed that the utilization of formal services was less frequent as the hours of informal care increased. Care recipient characteristics that emerged as important predictors included residence in elder housing, recent hospitalization, gender, limitations in activities of daily living, recipient of Medicaid, age, quantity of informal care, and number of household members. Important caregiver characteristics included difficulty getting around outside, rearrangement of work hours, and bowel and bladder care performed by female caregivers. The findings from this study support the consideration of both care recipient and caregiver characteristics when predicting the utilization of formal service use in the home. Data also support the development of interventions to promote the caregiving process.

Keywords: <Minor> Activities Of Daily Living^ Adult^ Aged^ Aged, 80 And Over^ Health Surveys^ Logistic Models^ Massachusetts^ Middle Age^ Predictive Value Of Tests^ Questionnaires/ <Major> *Caregivers^ *Health Services For The Aged^ *Home Care Services^ *Nursing Research.

Author: Intrator O, Castle NG, Mor V
Title: Facility characteristics associated with hospitalization of nursing home residents: results of a national study
Journal: Medical Care
Year: 1999 Mar
Volume: 37
Number: 3
Pages: 228-237
Abstract: OBJECTIVES: To test the effect of facility characteristics on the probability of hospitalization of nursing home residents, controlling for resident characteristics and the competing risk of death. RESEARCH DESIGN: Study data were derived from the evaluation of the implementation of the Resident Assessment Instrument, the Minimum Data Set (MDS) in 1993. The data consisted of 2080 residents in 253 NHs as well as the annual On-Line Survey Certification of Automated Records (OSCAR). MEASURES: Multinomial logistic regression was used to determine the effects of selected resident and facility characteristics on hospitalization or death within 6 months of baseline, adjusting for the complex sampling design (using SUDAAN). RESULTS: By controlling for resident demographics, advance directives, diagnoses, selected

clinical signs, and type of payer, we found that homes with special care units, more physicians (above the median 0.08 FTE physicians on staff or contract), and any physician extenders (nurse practitioners or physician assistants) were less likely to hospitalize their residents. Homes in which over 3.6% of the residents received respiratory treatment were more likely to hospitalize their residents. CONCLUSIONS: Findings suggest that Medicare HMOs should consider the capacity of nursing facilities, especially in terms of medical care capacity and clinical resources, to limit hospital admissions.

Keywords: <Minor> Advance Directives^ Aged^ Aged, 80 And Over^ Decision Making^ Geriatric Assessment^ Health Maintenance Organizations^ Health Services Research^ Logistic Models^ Medicare^ Mortality^ Nursing Homes --Organization And Administration --Og Nursing Homes --Utilization --Ut^ Risk Factors^ United States^ United States Health Care Financing Administration/ <Major> *Hospitalization --Statistical And Numerical Data --Sn^ *Nursing Homes --Statistical And Numerical Data --Sn^ *Patient Selection^ *Patient Transfer --Statistical And Numerical Data --Sn.

Author: Irvin CV, Massey S, Dorsey T
Title: Determinants of enrollment among applicants to PACE
Journal: Health Care Financing Review
Year: 1997 Winter
Volume: 19
Number: 2
Pages: 135-153
Abstract: During the 1970s and 1980s, a new approach to the integration of acute and long-term care (LTC) services was conceived and refined at On Lok, an organization in the Chinese community of San Francisco. Since then, On Lok and 10 Federal demonstration sites have tested this model which is today called the Program of All-Inclusive Care for the Elderly (PACE). This program has gained considerable political support and as a result, the 1997 Balanced Budget Agreement establishes PACE as a permanent provider under Medicare. The Federal demonstration of PACE was designed as a voluntary program. By exploiting its voluntary enrollment design, this study analyzes the determinants of program participation within a group of screened applicants. Findings of this study support the theory that the capitated payment structure of PACE creates incentives for program staff to avoid costly individuals. However, home ownership and provider attachment also act as important and significant barriers to enrollment.
Keywords: Aged^ Aged, 80 and over^ Comprehensive Health Care --Organization and Administration --OG^ Data Collection^ Decision Making^ Demography^ Health Services for the Aged --Organization and Administration --OG^ Insurance, Health, Reimbursement^ Models, Organizational^ Program Evaluation^ United States/ *Comprehensive Health Care --Utilization --UT^ *Health Services for the Aged --Utilization --UT^ *Medicare --Organization and Administration --OG^ *Patient Acceptance of Health Care --Statistical and Numerical Data --SN.

Author: Jackson SA, Mittelmark MB
Title: Unmet needs for formal home and community services among African American and white older adults: The Forsyth County aging study
Journal: Journal of Applied Gerontology
Year: 1997
Volume: 16
Number: 3
Pages: 298-316
Abstract: Using the Andersen-Newman model of health services utilization, factors associated with unmet needs for formal home and community services were evaluated cross-sectionally in a sample of community-dwelling African American and White older adults. Unmet needs for services were associated with inadequate transportation, use of mobility aids (e.g., canes, walkers, wheel-chairs), and activities of daily living (ADL) limitations among both African Americans and Whites. Older Whites with unmet needs also reported low instrumental support (i.e., availability of daily help with bathing, dressing, etc.) and were less likely to have a daily

caregiver. The predictive ability of the Andersen-Newman model varied slightly by race. Although comparable in terms of specificity (i.e., identifying those without unmet needs), the model was more sensitive to older African Americans than Whites with unmet needs. Findings provide evidence and a rationale for a more extensive assessment of unmet needs for services than is provided by consideration of functional limitations alone.

Keywords: <Major Medical Term> Aging^Community Care^Health Care Need^Home Care/ <Minor Medical Term> Aged^Article^Caregiver^Caucasian^Controlled Study^Daily Life Activity^Disability^Female^Health Care Utilization^Health Services Research^Human^Major Clinical Study^Male^Negro^Patient Transport^Race Difference^United States^Walking Aid.

Author: Johnson RE, Ried LD Vogt TM
Title: Comparing health-related indicators of very old hypertensives and nonhypertensives in an HMO
Journal: Journal Aging Health
Year: 1994 Nov
Volume: 6
Number: 4
Pages: 535-548
Abstract: The purpose of this study was to determine if very old hypertensives (85 years of age and over) were sicker and in poorer health than very old nonhypertensives. The authors compared the frequency of comorbidities, medical care and drug use, self-reported functional and health status, and health-related behaviors of very old hypertensive and nonhypertensive health maintenance organization (HMO) enrollees. Very old male hypertensives were less healthy than very old male nonhypertensives, female hypertensives, and nonhypertensives. In contrast, very old female hypertensives were healthy or healthier than very old female nonhypertensives. Hypertension may be a more serious condition among the very old males than very old females, or treatment may be more efficacious (or prevalent) for very old female hypertensives. These relationships require further study to determine if treatment guidelines should differ by sex among very old hypertensives.
Keywords: Activities of Daily Living^ Aged^ Aged, 80 and over^ Chi-Square Distribution^ Comorbidity^ Data Collection^ Drug Utilization --Statistical and Numerical Data --SN^ Health Maintenance Organizations --Statistical and Numerical Data --SN^ Hypertension --Drug Therapy --DT^ Oregon --Epidemiology --EP/ *Health Maintenance Organizations --Utilization --UT^ *Health Status Indicators^ *Hypertension --Epidemiology --EP.

Author: Jones A, Strahan G
Title: The national home and hospice care survey: 1994 summary
Journal: Vital Health Statistics 13
Year: 1997 Feb
Volume: 126
Number:
Pages: 1-124
Abstract: The 1994 National Home and Hospice Care Survey was a nationwide sample survey of agencies providing home health and hospice care, their current patients, and their discharges. Basic demographic information about the patients was collected. It included information about living arrangements, functional statuses, caregiver and referral sources, primary source of payment, services received, and service providers used. Current and admission diagnoses for each patient were collected according to the International Classification of Diseases, Clinical Modification, 9th Revision. The data were collected by personal interview using three questionnaires and two sampling lists. Data are presented in 61 tables according to standard sets of descriptive variables. The tables on patients are grouped into four categories: home health care current patients, home health care discharges, current hospice care patients, and hospice care discharges. Data are presented on agency characteristics, demographic characteristics, utilization measures, and health and functional status of current patients and discharges.
Keywords: <Minor> Activities Of Daily Living^ Adolescence^ Adult^ Aged^ Aged, 80 And Over^ Health

Services Needs And Demand^ Home Care Services --Organization And Administration --Og Home Care Services --Utilization --Ut^ Hospice Care --Organization And Administration --Og Hospice Care --Utilization --Ut^ Middle Age^ Patient Discharge^ Questionnaires^ Referral And Consultation^ United States/ <Major> *Health Care Surveys^ *Home Care Services --Statistical And Numerical Data --Sn^ *Hospice Care --Statistical And Numerical Data --Sn.

Author: Joseph A, Boult C
Title: Managed primary care of nursing home residents
Journal: Journal of the American Geriatrics Society
Year: 1998 Sep
Volume: 46
Number: 9
Pages: 1152-1156
Abstract: OBJECTIVE: To measure the rates of hospital use and mortality of nursing homes residents who received their primary care from nurse practitioner-physician teams. DESIGN: A cohort study. SETTING: Thirty nursing homes in Southern California. PATIENTS: Older, long-term residents of nursing homes enrolled in a Medicare HMO (n = 307). INTERVENTION: Primary care by an accessible interdisciplinary team supported by clinical guidelines, continuous quality improvement techniques, and increased availability of clinical services at the nursing homes. RESULTS: The residents (mean age 83.5 years, 69.0% women) had a high prevalence of dementia (83.5%) and functional disability (87.2% were dependent in two or more activities of daily living). About half (50.8%) expressed a preference for "no hospitalization and no resuscitation." Compared with other nursing homes populations, this cohort experienced a lower annual rate of hospital use (518 days/1000 residents) and a similar rate of mortality (23.8%). CONCLUSIONS: Integration of the efforts of physicians, nurse practitioners, and nursing home staff can lead to low rates of hospital use by nursing home residents. The effects on residents' quality of life and mortality require further study.
Keywords: <Minor> Activities Of Daily Living^ Advance Directives --Statistical And Numerical Data --Sn^ Aged^ Aged, 80 And Over^ California^ Cohort Studies^ Delivery Of Health Care --Methods --Mt^ Health Services --Utilization --Ut^ Models, Organizational^ Mortality^ Nursing Homes --Statistical And Numerical Data --Sn Nursing Homes --Standards --St^ Patient Care Team^ Primary Health Care --Standards --St/ <Major> *Health Maintenance Organizations --Statistical And Numerical Data --Sn^ *Hospitalization --Statistical And Numerical Data --Sn^ *Nursing Homes --Organization And Administration --Og^ *Primary Health Care --Organization And Administration --Og.

Author: Kales HC, Blow FC, Copeland LA, Bingham RC, Kammerer EE, Mellow AM
Title: Health care utilization by older patients with coexisting dementia and depression
Journal: American Journal of Psychiatry
Year: 1999
Volume: 156
Number: 4
Pages: 550-556
Abstract: Objective: Few studies have examined the course of coexisting dementia and depression. The purpose of this study was to compare elderly patients who had coexisting dementia and depression with elderly patients who had either disorder alone in terms of their utilization of inpatient and outpatient services. Method: The study group included 7,115 veterans aged 60 years or older who had been discharged from Department of Veterans Affairs inpatient units in 1992 with diagnoses of major depression, dementia, or both. Outcome measures were analyzed for a 2-year period following the index hospitalization for each diagnostic study group. Results: Patients with coexisting dementia and depression had significantly more psychiatric inpatient days than the other two study groups and more medical inpatient days and nursing home readmissions than patients with depression alone. Patients with coexisting dementia and depression had significantly more total inpatient days than the other two groups. Notably, patients with coexisting dementia and depression did not utilize more outpatient resources than the other study groups; in fact, they had significantly fewer medical, psychiatric, and total visits than patients with depression alone. Conclusions: The findings suggest that patients with

coexisting dementia and depression are high utilizers of inpatient services, with a course of illness that may resemble dementia in terms of nursing home and inpatient medical care utilization and depression in terms of inpatient psychiatric care utilization; however, these patients utilized significantly fewer outpatient resources than the group with depression alone. Aggressive outpatient treatment approaches might reduce utilization of inpatient care for patients with coexisting depression and dementia.

Author: Kambhu PP, Warren JJ, Hand JS, Levy SM, Cowen HJ
Title: Dental treatment outcomes among dentate nursing facility residents: an initial study
Journal: Spec Care Dentist
Year: 1998 May-Jun
Volume: 18
Number: 3
Pages: 128-132
Abstract: This investigation used retrospective methodology to examine the outcomes of previous dental treatment and the incidence of developing restorative and extraction needs, including dental caries, among nursing facility residents. Data were taken from treatment records of 48 dentate residents in 10 nursing facilities who received comprehensive dental treatment delivered through the Geriatric Mobile Unit (GMU) program operated by the University of Iowa College of Dentistry and were examined an average of 2.9 years after initial examination. Residents had a mean age of 84 years at the second exam, and 90% were female. About 18% of all previously placed restorations needed to be replaced, and an additional 11% of teeth that received a restoration needed to be extracted at follow-up. At follow-up, nearly 70% (33/48) of residents needed restorative care, while 44% (21/48) needed extractions. The mean incidence of teeth developing new treatment needs between the two visits was 2.7 teeth/person (14.9% of teeth) for restorative need and 1.1 teeth/person (6.6% of teeth) for extraction need. Results suggest that successful treatment outcomes can be achieved for nursing facility residents, but that dental disease and treatment needs develop at a high rate among these residents.
Keywords: <Minor> Aged^ Aged, 80 And Over^ Chi-Square Distribution^ Dental Restoration, Permanent --Utilization --Ut^ Follow-Up Studies^ Nursing Homes^ Outcome Assessment (Health Care)^ Retrospective Studies^ Tooth Extraction --Utilization --Ut/ <Major> *Dental Care For Aged --Statistical And Numerical Data --Sn^ *Dental Restoration, Permanent --Statistical And Numerical Data --Sn^ *Health Services Needs And Demand^ *Tooth Extraction --Statistical And Numerical Data --Sn.

Author: Koenig HG, Kuchibhatla M
Title: Use of health services by medically ill depressed elderly patients after hospital discharge
Journal: American Journal of Geriatric Psychiatry
Year: 1999
Volume: 7
Number: 1
Pages: 48-56
Abstract: The authors evaluated a consecutive sample of 542 elderly hospital patients for depression; of these, 160 depressed and 171 nondepressed patients were followed up for a median of 47 weeks after discharge. A subset of 113 depressed patients had significant physical disability. Depressed patients saw physicians more frequently, particularly during the 9- to 12- month period after hospital discharge. Depressed patients also had higher rates of rehospitalization and spent more days in the nursing home. These findings persisted after physical health status was controlled. Patients who remained both depressed and physically disabled during the follow-up period used the most general-medical services during the year after hospital discharge, but did not see mental health specialists any more frequently than those whose depression and physical disability improved. These results underscore the importance of diagnosing and treating depression during and after hospital discharge to increase quality of life and possibly reduce health service use.
Keywords: <Major Medical Term> Depression^Health Care Utilization^Hospital Discharge/ <Minor Medical Term> Disability^Hospitalization^Nursing Home^Medical Service^Mental Health Service^Medical Specialist^Quality Of Life^Human^Male^Female^Major Clinical

Study^Controlled Study^Aged^Adult^Article.

Author: Koenig HG, Kuchibhatla M
Title: Use of health services by hospitalized medically ill depressed elderly patients
Journal: American Journal of Psychiatry
Year: 1998
Volume: 155
Number: 7
Pages: 871-877
Abstract: Objective: The authors examined whether depression is associated with greater use of health services by elderly medical patients before and during hospitalization. Method: Depression and recent use of health services were assessed in 542 patients aged 60 or over who were consecutively admitted to university medical services. Depression was measured by using the Center for Epidemiologic Studies Depression Scale, the Hamilton Depression Rating Scale, and the depressive disorders section of the National Institute of Mental Health Diagnostic Interview Schedule, which was administered by a psychiatrist. Results: After age, sex, race, education, and severity of medical illness were controlled for, Hamilton depression score significantly predicted hospital days in the past year, hospital days and total inpatient days (hospital plus nursing home) in the past 3 months, and number of outpatient medical visits in the past 3 months. Depressed patients bad more hospital days in the past year and had more hospital days, total inpatient days, and outpatient medical visits in the past 3 months than did nondepressed patients. Associations between depression and length of index hospital stay, home health visits, nursing home days, and number of prescription medications disappeared when severity of medical illness was controlled. Mental health visits were no more common among depressed than nondepressed patients. Conclusions: Depressed elderly medical inpatients used more hospital and outpatient medical services than nondepressed patients, but they did not receive more mental health services. Efforts by primary care physicians and third-party payers to identify and treat depression in this population are needed.
Keywords: <Major Medical Term> Depression^Health Care Utilization/ <Minor Medical Term> Mental Health Service^Hospitalization^Length Of Stay^Outpatient Care^Health Behavior^Nursing Home^Drug Use^Comorbidity^Elderly Care^Health Care Cost^Human^Male^Female^Major Clinical Study^Controlled Study^Aged^Adult^Article^Priority Journal.

Author: Krop JS, Powe NR, Weller WE, Shaffer TJ, Saudek CD, Anderson GF
Title: Patterns of expenditures and use of services among older adults with diabetes. Implications for the transition to capitated managed care
Journal: Diabetes Care
Year: 1998 May
Volume: 21
Number: 5
Pages: 747-752
Abstract: OBJECTIVE: To examine health care use and expenditures among older adults with diabetes, investigate factors that are associated with higher expenditures, and describe the policy implications of caring for this population under managed care. RESEARCH DESIGN AND METHODS: A cross-sectional analysis of expenditures for individuals with diabetes over age 65 years from a nationwide 5% random sample of Medicare beneficiaries was conducted during 1992. All components of medical care covered under Medicare were examined. Multivariate analysis was used to assess the contribution of age, race, sex, number of diabetic complications, and comorbidity (Charlson Index) on total expenditures. RESULTS: On average, individuals with diabetes (n = 188,470) were 1.5 times ($P < 0.0001$) as expensive as all Medicare beneficiaries (n = 1,371,960). However, there were wide variations, with the most expensive 10% of beneficiaries with diabetes accounting for 56% of expenditures for individuals with diabetes and the least expensive 50% accounting for 4%. Acute care hospitalizations accounted for the majority (60%) of total expenditures, whereas outpatient and physician services accounted for 7 and 33%, respectively. There were no differences in the number of complications for all older adults with diabetes compared with those with the highest expenditures. However, the average number of hospitalizations was 1.6 times (0.53 vs. 0.34; P

< 0.0001) higher, and the average length of stay was 2 days longer, among older adults with diabetes (P < 0.0001). In the regression model, age and male sex (factors currently used to set payment rates for Medicare managed care enrollees), and number of diabetic complications, but not race, were positively related to expenditures, yet had minimal predictive power (R2 = 0.0006). The addition of the Charlson Index, also positively related to expenditures, was able to explain up to 20% of the variation in total expenditures (R2 = 0.196). CONCLUSIONS: There are large variations in expenditures among older adults with diabetes. Because elderly beneficiaries with diabetes are more expensive than the average older adult, current Medicare capitation rates may be inadequate. To avoid selection bias and under-treatment of this vulnerable population under managed care, methods to construct fair payment rates and safeguard quality of care are desirable.

Keywords: <Minor> Age Factors^ Aged^ Aged, 80 And Over^ Cross-Sectional Studies^ Diabetes Mellitus --Therapy --Th^ Diabetic Foot --Economics --Ec Diabetic Foot --Therapy --Th^ Diabetic Neuropathies --Economics --Ec Diabetic Neuropathies --Therapy --Th^ Diabetic Retinopathy --Economics --Ec Diabetic Retinopathy --Therapy --Th^ Health Care Costs --Trends --Td^ Health Expenditures --Trends --Td^ Linear Models^ Managed Care Programs^ Middle Age^ Sex Factors^ United States/ <Major> *Diabetes Mellitus --Economics --Ec^ *Health Expenditures --Statistical And Numerical Data --Sn^ *Health Services For The Aged --Utilization --Ut^ *Medicare --Utilization --Ut.

Author: Krout JA
Title: Changes in senior center participant characteristics during the 1980s
Journal: Journal of Gerontological Social Work
Year: 1994
Volume: 22
Number: 1/2
Pages: 41-60
Abstract: Analyzed longitudinal data on changes in senior center participation rates and participant characteristics from 1982 to 1989. The sample was comprised of 424 senior centers surveyed in 1982 that responded to a follow-up mail survey in 1989. Data on changes in participant characteristics were gathered from questions about changes in the age, sex, income, race, and frailty of participants. Cross tabulations were used to identify correlates of participant characteristic change. Results indicated that 56 percent of centers reported an increase in the average age of participants since 1982. The majority of centers (57 percent) noted no change in participants' income level; 26 percent reported an increase in income level. Participants' health was reported as more likely to have declined (35 percent) than to have improved (27 percent). Fifty-eight percent indicated an increase in the number of frail elderly participants. A majority of centers (70 percent) noted no change in minority participation. Significant variations in participant characteristics existed within the sample, but the results suggest the need for more health-intensive services in some centers and for strategies to mix less healthy participants with more active ones. (PH) (AgeLine Database, copyright 1995 American Association of Retired Persons, all rights reserved).
Keywords: United States, Older Adults, Senior Centers, Participation Rates, Surveys, Demographic Characteristics, Service Utilization, Population Aging, Frail Elderly, Service Planning, Activity Planning, Activity Participation.

Author: Krout JA
Title: Senior centers and services for the frail elderly
Journal: Journal of Aging and Social Policy
Year: 1995
Volume: 7
Number: 2
Pages: 59-76
Abstract: Reviews and synthesizes the research on senior center programming and utilization relating to the physically and mentally frail elderly. Many researchers looking at senior center participation and participants have observed that frail older adults are often underserved and that older individuals who are physically and/or mentally impaired make up a very small percentage of

senior center users. However, data from a recent national survey of over 400 senior centers indicate that senior centers offer a mean of 27 distinct programs, and many of these services are appropriate for meeting some of the long term care needs of frail older adults. They include programs provided to the frail who attend senior centers, as well as services delivered to individual or group residences or provided through referral. Research also suggests that compared with other community-based organizations, senior centers are significantly involved with programming for frail older adults; 84 percent of the 159 Maryland center directors responding to a survey reported that they direct programs specifically to physically or mentally impaired and chronically ill older adults. Nationwide, data suggest that 5 percent to 10 percent of older adults attending senior centers are vision- or hearing-impaired, frail in health, or cognitively impaired. Data exist to suggest that the senior center population in general is getting older and more impaired. Research supports the conclusion that frail older adults do participate in senior centers but suggests that senior centers face a number of obstacles in providing programming for the frail elderly, including lack of money, staff, and materials.

Keywords: United States, Older Adults, Frail Elderly, Senior Centers, Literature Review, Service Planning, Service Demand, Service Utilization, Service Delivery.

Author: Laditka SB
Title: Modeling lifetime nursing home use under assumptions of better health
Journal: J Gerontol B Psychol Sci Soc Sci
Year: 1998 Jul
Volume: 53
Number: 4
Pages: S177-S187
Abstract: OBJECTIVES: There is evidence of notable improvement in active life expectancy among older Americans. Little is known, however, about the effect of better health on lifetime nursing home use. The purpose of this study was to address this gap in our knowledge. METHODS: Discrete-time hazard models of nursing home admission and discharge were developed using data from the 1982, 1984, and 1989 National Long Term Care Surveys and the 1984-1990 Longitudinal Study of Aging. Microsimulation techniques were used to incorporate monthly functional status information into the models that predict nursing home use and to generate lifetime nursing home histories for a cohort of older men and women under various assumptions of improved morbidity. RESULTS: Improved health increased total life expectancy and the absolute amount of time spent in both the community and in nursing homes. Better health did not change the proportion of life older persons spent in nursing homes or the percentage of the cohort who entered nursing homes. DISCUSSION: If morbidity improves there will be an increase in the use of nursing homes. However, for the majority of older persons, better health will be associated with more independent living throughout the life span.
Keywords: <Minor> Activities Of Daily Living --Classification --Cl^ Aged^ Aged, 80 And Over^ Cohort Studies^ Disability Evaluation^ Forecasting^ Geriatric Assessment --Statistical And Numerical Data --Sn^ Proportional Hazards Models^ United States/ <Major> *Homes For The Aged --Utilization --Ut^ *Life Expectancy --Trends --Td^ *Models, Statistical^ *Nursing Homes --Utilization --Ut^ *Physical Fitness.

Author: Lee Y, Kasper JD
Title: Assessment of medical care by elderly people: general satisfaction and physician quality
Journal: Health Services Research
Year: 1998 Feb
Volume: 32
Number: 6
Pages: 741-758
Abstract: OBJECTIVE: To identify personal characteristics and factors related to health and patterns of healthcare utilization associated with the elderly people's satisfaction with medical care. DATA SOURCES/STUDY SETTING: Data from the 1991 Medicare Current Beneficiary Survey (MCBS) on 8,859 persons age 65 and over living in the community. STUDY DESIGN: Items reflecting general satisfaction with care and views of physician quality are examined and, based on factor analysis, grouped in dimensions of two (global quality, access) and three

(technical skills, interpersonal manner, information-giving), respectively. The relationship of high levels of satisfaction in each dimension to personal characteristics of elderly people, and to measures of access and utilization, is assessed using logistic regression. PRINCIPAL FINDINGS: While satisfaction is high, with over 90 percent surveyed expressing some satisfaction, there is substantial variation with less likelihood of high satisfaction among those 80 or older, with less education and income and in poorer health. Longer waiting time at visits and less frequent visits are factors in lower satisfaction as well. A favorable perception of physician quality, especially regarding technical skills, appears to play a significant role in satisfaction with global quality of care. CONCLUSIONS: Studies of patient satisfaction in elderly people are rare. Some factors expected to be related to positive assessment based on earlier studies, were, e.g., better health and shorter waiting time, while others were not, e.g., increasing age. Elderly people appear to place greater importance on physician technical skills, as opposed to interpersonal dimensions, in assessing global quality. These findings suggest the need for a better understanding of how elderly people evaluate care and what they value in interactions with the healthcare system.

Keywords: <Minor> Age Factors^ Aged^ Aged, 80 And Over^ Clinical Competence --Statistical And Numerical Data --Sn^ Health Care Surveys^ Health Services Accessibility^ Health Status^ Medicare^ United States/ <Major> *Patient Satisfaction --Statistical And Numerical Data --Sn^ *Physicians --Standards --St^ *Quality Of Health Care --Statistical And Numerical Data --Sn.

Author: Leibson CL, Ransom JE, Brown RD, O'Fallon WM, Hass SL, Whisnant JP
Title: Stroke-attributable nursing home use: a population-based study
Journal: Neurology
Year: 1998 Jul
Volume: 51
Number: 1
Pages: 163-168
Abstract: OBJECTIVE: To estimate 1) among patients with stroke, nursing home use attributable to stroke, and 2) the savings in nursing home use, assuming strokes were prevented. METHODS: All confirmed cases of first stroke among Rochester, Minnesota, residents from 1987 through 1989 (n = 290) and one nonstroke control of same gender and similar age for each patient were followed up in provider-linked medical records and State of Minnesota nursing home files until emigration, death, or December 31, 1994. Data included disability and place of residence at baseline (i.e., date of stroke for each patient and their corresponding control), length of follow-up, cumulative incidence of nursing home admission, proportion of follow-up spent in a nursing home, and number of nursing home days. RESULTS: Before baseline, patients and controls were similar in the level of disability (mean Rankin = 1.7 for patients and 1.6 for controls) and the proportion in a nursing home (11% for both groups). Among those not in the nursing home at baseline, 5-year cumulative incidence of first admission was 48% for cases versus 20% for controls. Survival was significantly shorter for cases than for controls; the proportion of follow-up spent in the nursing home was 20% for cases versus 11% for controls. When controlling for survival, cases experienced an average of 110 (95% CI, 63 to 156) more nursing home days per person than controls in the first five years. When nursing home use during differential survival was included, the difference in nursing home days between cases and controls was no longer significant (p = 0.16). CONCLUSIONS: Stroke prevention would result in fewer cases admitted to the nursing home, older age at first admission, and a smaller proportion of remaining life spent in the nursing home, but stroke prevention would not result in fewer nursing home days.

Keywords: <Minor> Aged^ Aged, 80 And Over^ Cerebrovascular Disorders --Mortality --Mo^ Cohort Studies^ Cost Savings^ Follow-Up Studies^ Length Of Stay^ Middle Age^ Nursing Homes --Statistical And Numerical Data --Sn/ <Major> *Cerebrovascular Disorders --Economics --Ec *Cerebrovascular Disorders --Therapy --Th^ *Nursing Homes --Utilization --Ut.

Author: Leo RJ, Narayan DA, Sherry C, Michalek C, Pollock D
Title: Geropsychiatric consultation for African-American and Caucasian patients
Journal: General Hospital Psychiatry
Year: 1997 May

Volume: 19
Number: 3
Pages: 216-222
Abstract: We assessed differences in the referral rates of African-American and Caucasian elderly for geropsychiatric consultation. Reasons for referral, assigned diagnoses, and interventions made were also compared. A retrospective chart review of psychiatric consultations was completed for patients aged 65 years and older for a 2-year period. Significantly more consultations were requested Caucasian elderly (6.2%) than for African-American elderly (3.8%). African-American elderly were referred for evaluation of psychosis significantly more often and for assessment of suicide potential significantly less often than Caucasians. Consultants diagnosed African-American elderly with psychotic disorders, specifically schizophrenia, and dementia significantly more often than Caucasians. Caucasian elderly were significantly more often diagnosed with mood disorders, especially depressive disorders. Interventions/recommendations made for Caucasian and African-American elderly did not differ for the most part. Recommendations for legal measures were suggested for African-American elderly more often than for Caucasians. Differences between Caucasian and African-American elderly were observed in consultation referral rates, reasons for referral, and psychiatric diagnoses made. The potential impact of cultural variables and the racial and age differences between hospital staff and patients may account for some of these findings. Further awareness of the needs of African-American elderly is required.
Keywords: <Minor> Aged^ Aged, 80 And Over^ Blacks --Psychology --Px^ Dementia --Diagnosis --Di Dementia --Psychology --Px^ Mental Disorders --Diagnosis --Di Mental Disorders --Psychology --Px^ New York --Epidemiology --Ep^ Retrospective Studies^ Whites --Psychology --Px/ <Major> *Blacks --Statistical And Numerical Data --Sn^ *Dementia --Epidemiology --Ep^ *Geriatric Psychiatry --Statistical And Numerical Data --Sn^ *Mental Disorders --Epidemiology --Ep^ *Patient Care Team --Utilization --Ut^ *Referral And Consultation --Utilization --Ut^ *Whites --Statistical And Numerical Data --Sn.

Author: Leveille SG, Wagner EH, Davis C, Grothaus L, Wallace J, LoGerfo M, Kent D
Title: Preventing disability and managing chronic illness in frailolder adults: a randomized trial of a community-based partnership with primary care
Journal: Journal of the American Geriatrics Society
Year: 1998 Oct
Volume: 46
Number: 10
Pages: 1191-1198
Abstract: BACKGROUND: Effective new strategies that complement primary care are needed to reduce disability risks and improve self-management of chronic illness in frail older people living in the community. OBJECTIVE: To evaluate the impact of a 1-year, senior center-based chronic illness self-management and disability prevention program on health, functioning, and healthcare utilization in frail older adults. DESIGN: A randomized controlled trial. SETTING: A large senior center located in a northeast Seattle suburb. The trial was conducted in collaboration with primary care providers of two large managed care organizations. PARTICIPANTS: A total of 201 chronically ill older adults seniors aged 70 and older recruited through medical practices. INTERVENTION: A targeted, multi-component disability prevention and disease self-management program led by a geriatric nurse practitioner (GNP). MEASUREMENTS: Self-reported Physical function, physical performance tests, health care utilization, and health behaviors. RESULTS: Each of 101 intervention participants met with the GNP from 1 to 8 times (median = 3) during the study year. The intervention group showed less decline in function, as measured by disability days and lower scores on the Health Assessment Questionnaire. Other measures of function, including the SF-36 and a battery of physical performance tests, did not change with the intervention. The number of hospitalized participants increased by 69% among the controls and decreased by 38% in the intervention group (P = .083). The total number of inpatient hospital days during the study year was significantly less in the intervention group compared with controls (total days = 33 vs 116, P = .049). The intervention led to significantly higher levels of physical activity and senior center participation and significant reductions in the use of psychoactive medications. CONCLUSIONS: This project provides evidence that a community-based collaboration with

primary care providers can improve function and reduce inpatient utilization in chronically ill older adults. Linking organized medical care with complementary community-based interventions may be a promising direction for research and practice.
Keywords: <Minor> Aged^ Community-Institutional Relations^ Disability Evaluation^ Exercise^ Geriatric Assessment^ Health Behavior^ Health Maintenance Organizations^ Health Services For The Aged --Utilization --Ut^ Outcome And Process Assessment (Health Care)^ Primary Health Care --Utilization --Ut^ Risk Factors^ Social Behavior^ Washington/ <Major> *Activities Of Daily Living^ *Chronic Disease --Therapy --Th^ *Community Health Services --Organization And Administration --Og^ *Frail Elderly^ *Health Services For The Aged --Organization And Administration --Og^ *Primary Health Care --Organization And Administration --Og^ *Self Care.

Author: Lipsman R
Title: Services and supports to the homebound elderly with mental health needs
Journal: Journal of Long Term Home Health Care: the PRIDE Institute Journal
Year: 1996
Volume: 15
Number: 3
Pages: :24-38
Abstract: Discusses services and supports to the homebound elderly with mental health needs. Conceptual issues of service need and utilization, barriers to the elderly receiving mental health services, and existing community resources are identified, and program components defined. These components include an understanding of the needs of the elderly, a referral network, comprehensive assessments, realistic program goals, consistent and creative services, cooperation with family and other service providers, and cultural differences in the elderly population. Specific programs that address mental health needs of the elderly are reviewed: training programs that address education and support, assessment models that initiate contact with the elderly person, in-home mental health treatment models that address physical and psychological barriers that preclude elderly people from seeking mental health care, models that provide home-based services, models that were designed to address multiple levels of need, and comprehensive health service programs such as the Nursing Home Without Walls Programs and the social/health maintenance programs of the 1980s. Cost implications of treating the mental health needs of the elderly are also discussed. (SW) (AgeLine Database, copyright 1996 American Association of Retired Persons, all rights reserved).
Keywords: United States, Older Adults, Long Term Care, Home Health Care, Frail Elderly, Housebound, Mental Health Services, Community Services, Supportive Services, Models, Service Needs, Service Utilization.

Author: Lum YS, Chang HJ
Title: The effect of Medicaid coverage on use of health services by low-income elderly people
Journal: Social Work Research
Year: 1998
Volume: 22
Number: 1
Pages: 31-43
Abstract: This study examined the effect of Medicaid coverage on the use of health services among low-income elderly people in different racial, ethnic, and gender groups. Using a national representative sample of 1,542 low-income elderly people from the first wave of the Asset and Health Dynamics among the Oldest Old study, we estimated a two-part model for health services use. The results showed that Medicaid coverage was positively associated with the use of health services for low-income elderly people and that the association varied by race, ethnicity, and gender. The study concluded that the Medicaid program did not work equally well for low-income elderly people from different racial, ethnic, and gender groups.
Keywords: Author Keywords: Elderly People/ Gender/ Health Services/ Low-Income/ Medicaid/ Race.

Author: Malaguarnera M, Pistone G, Motta M, Lomanto PC, Difazio I

Title: Assessment of self-sufficiency in ultra octagenerians
Journal: Archives of Gerontology and Geriatrics
Year: 1996
Volume: S5
Number:
Pages: 505-508
Abstract: Among the age-related problems, a progressive loss of self-sufficiency is an important issue. We conducted a detailed analysis on 400 ultraoctagenarians to detect the most frequent deficits and needs. Our study series consisted of 168 males and 232 females, grouped into age classes. This sample was collected over a 4 year period in old peoples' homes, private homes and hospitals. We utilized activity of daily living (ADL), instrumental activity of daily living (IADL) and mini mental state examination (MMSE) scales to evaluate self-sufficiency of the elderly people. Complete self-sufficiency was observed in a very small percentage of the sample, whereas most of the impairments was present in memory, in drug intake and diet. We conclude that social efforts must be aimed at creating a policy which recognizes the need for family care of ultraoctagenarians and grants incentives to achieve this goal.
Keywords: Author Keywords: Self-Sufficiency Of The Elderly/ Activity Of Daily Living/ Instrumental Activity Of Daily Living/ Mini Mental State Examination.

Author: Maloney SK, Finn J, Bloom DL, Andresen J
Title: Personal decisionmaking styles and long-term care choices
Journal: Health Care Financing Review
Year: 1996 Fall
Volume: 18
Number: 1
Pages: 141-155
Abstract: To learn more about how older people make decisions about long-term care (LTC), in-depth interviews were conducted with 63 elderly individuals and 56 of their relatives to obtain information on the decisionmaking process. This qualitative research showed that LTC decisionmaking does not always follow typical consumer decisionmaking models, in which a consumer seeks a product or service, selects among the alternatives, and assesses the choice. Further, the interviews yielded four long-term care decisionmaking styles among older adults related to their degree of planning or not planning. This study underscores the need to develop tailored communications for older people and their families aimed at encouraging appropriate and cost-effective use of LTC services.
Keywords: Activities of Daily Living^ Advance Directives^ Aged^ Aged, 80 and over^ Communication^ Family^ Health Services Research --Methods --MT^ Housing for the Elderly --Utilization --UT^ Interviews^ Medicare^ Nursing Homes --Utilization --UT^ Public Policy^ United States/ *Decision Making^ *Long-Term Care --Utilization --UT^ *Patient Acceptance of Health Care.

Author: Manheim LM, Guihan M, Hughes SL
Title: Organizational characteristics, client characteristics, and the delivery of home care services
Journal: Medical Care Research and Review
Year: 1995 Nov
Volume: 52
Number: 4
Pages: 517-531
Abstract: This research examines the extent to which organizational professional orientation, client perceived needs, and client characteristics jointly determine long-term care service delivery to a frail elderly population. The study uses primary data collected from 16 community networks that were part of a national demonstration of the Living at Home Program, conducted from 1986 to 1989. Data include baseline assessments of individuals enrolled at each site, subsequent utilization data, and data on community network characteristics. Site professional orientation has a significant role in determining services provided to clients, with social service agencies more likely to provide nonmedical services and less likely to provide skilled-care services. Despite systematic site variation in the services provided to individuals, sites appear

to reasonably allocate resources among individuals with differing levels of functional disability.

Keywords: Activities of Daily Living^ Aged^ Aged, 80 and over^ Chronic Disease^ Cognition Disorders --Nursing --NU^ Community Networks --Organization and Administration --OG^ Frail Elderly^ Health Services for the Aged --Utilization --UT^ Health Services Needs and Demand^ Health Services Research^ Home Care Services --Utilization --UT^ United States/ *Delivery of Health Care --Organization and Administration --OG^ *Health Services for the Aged --Organization and Administration --OG^ *Home Care Services --Organization and Administration --OG.

Author: McCall N, Korb J
Title: Utilization of services in Arizona's capitated Medicaid program for long-term care beneficiaries
Journal: Health Care Financing Review
Year: 1997 Winter
Volume: 19
Number: 2
Pages: 119-134

Abstract: The Arizona Long-Term Care System (ALTCS), Arizona's Medicaid program for long-term care (LTC) beneficiaries, capitates contractors to provide a full range of acute and LTC services to financially-eligible beneficiaries determined to be at risk of institutionalization. This article compares the acute care utilization experience of LTC beneficiaries in ALTCS with those in a fee-for-service (FFS) Medicaid program, linking data from both the Medicare and the Medicaid program files. Patterns of use observed in Arizona seem more consistent with a managed care environment than those observed in the FFS comparison. Rates of acute care utilization observed for both the capitated and the FFS program should be of interest to States considering incorporating LTC beneficiaries into their Medicaid managed care program.

Keywords: Aged^ Aged, 80 and over^ Arizona^ Data Interpretation, Statistical^ Demography^ Fee-for-Service Plans --Economics --EC Fee-for-Service Plans --Utilization --UT^ Health Services Research^ Long-Term Care --Utilization --UT^ Managed Care Programs --Economics --EC^ Medicare^ Middle Age^ New Mexico^ State Health Plans --Economics --EC^ United States/ *Long-Term Care --Economics --EC^ *Managed Care Programs --Utilization --UT^ *Medicaid --Statistical and Numerical Data --SN.

Author: McCusker J, Healey E, Bellavance F, Connolly B
Title: Predictors of repeat emergency department visits by elders
Journal: Academic Emergency Medicine
Year: 1997 Jun
Volume: 4
Number: 6
Pages: 581-588

Abstract: OBJECTIVE: To determine which characteristics of older patients who use a hospital ED are associated with repeat visits during the 90 days following the index visit. METHODS: The study was conducted in the ED of a 400-bed university-affiliated acute care community hospital in Montreal. Patients aged > or = 75 years who visited the ED between 08:00 and and 16:00 on a convenience sample of days over an 8-week period (July and August 1994) were assessed using a questionnaire, physical and cognitive status instruments, and a functional problem checklist. The hospital's administrative database was used to identify repeat visits during the 90 days following the ED visit. The representativeness of the sample was assessed by analyses of ED visits made by 4,466 persons aged > or = 65 years during a 12-month period (September 1993 to August 1994) using the hospital's administrative database. RESULTS: 256 patients aged > or = 75 years visited the ED during the study period and 167 were assessed. Of these, 54 (32%) were admitted to the hospital. Among the 113 patients released from the ED, 27 (24%) made repeat visits during the next 90 days. In univariate analyses, repeat visits were significantly associated with the number of functional problems, cognitive impairment, and previous ED visits. In multiple logistic regression, male gender, living alone, and number of functional problems were independent predictors of repeat visits. In the administrative data analyses, nighttime arrival to the ED for the index visit was significantly associated with repeat visits. CONCLUSIONS: Self-reported risk factors can help to identify a group of elders likely to make repeated ED visits; the development of a screening instrument incorporating questions on these problems and implementation of appropriate interventions might improve these patients' quality of life and reduce the demand for further ED care in this age group.

Keywords: <Minor> Aged^ Aged, 80 And Over^ Hospitalization^ Hospitals, Community^ Prospective Studies^ Quebec^ Retrospective Studies^ Socioeconomic Factors/ <Major> *Emergency Service, Hospital --Utilization --Ut^ *Health Services For The Aged --Utilization --Ut.

Author: McWilliam CL, Stewart M, Brown JB, Mcnair S, Donner A, Desaik Coderre P, Galajda J
Title: Home-based health promotion for chronically ill older persons: results of a randomized controlled trial of a critical reflection approach
Journal: Health Promotion International
Year: 1999
Volume: 14
Number: 1
Pages: 27-41
Abstract: The purpose of this study was to test a health promotion intervention for people over 65 years of age discharged from hospital to care at home for chronic medical conditions. Researchers hypothesized that chronically ill older people who received the intervention would have a significantly more positive mindset (or attitude toward their life, self health, and health cave), would use significantly less hospital and home care services and would have a significantly better quality of life. At the time of discharge from hospital, 298 seniors were randomized to receive the usual home care plus the intervention, or to an attention control group receiving the usual home care. The intervention was comprised of approximately 10 weekly hour-long sessions in which a nurse facilitated critical reflection on life and health. Data collected by personal interview at baseline, 22 weeks, and 1 year later were analyzed using ANOVA and logistic regression, controlling for age, gender, living arrangements, accommodation, number of chronic medical problems and baseline differences, as appropriate. Results: Those who received the intervention had significantly greater independence (p = 0.008) and perceived ability to manage their own health (p = 0.014) and significantly less desire for information (p = 0.021) immediately post-intervention. At the 1-year follow-up, the pattern persisted although significant differences were limited to independence (p = 0.007) and desire for information (p = 0.035). As well, at l-yens the intervention group had higher yet more significantly declined self-care agency (p = 0.025) and focus of authority (p = 0.017). Comparison of changes in health resource utilization by the two groups did not differ significantly. However, the intervention group had a significantly greater (p = 0.006) chance of having higher quality of life immediately post-intervention This trend persisted at I year, although differences were non-significant. Results suggest the clinical potential of critical reflection to enhance the health of chronically ill older persons. Further investigation with less frail populations is needed.
Keywords: Author Keywords: Critical Reflection/ Health Care For Chronic Illness / Health Promotion/ Perspective Transformation.

Author: Meng YY, Jatulis DE, McDonald JP, Legorreta AP
Title: Satisfaction with access to and quality of health care among Medicare enrollees in a health maintenance organization
Journal: Western Journal of Medicine
Year: 1997 Apr
Volume: 166
Number: 4
Pages: 242-247
Abstract: This study was designed to determine the levels and predictors of Medicare enrollees' satisfaction with access to medical care and quality of health care in a health maintenance organization. Data collected by an instrument adapted from the Group Health Association of America's Consumer Satisfaction Survey were analyzed after being linked with administrative data. In general, Medicare enrollees reported high satisfaction with both access to and quality of health care. Most members (96%) rated skill, experience, and training of physicians and the friendliness and courtesy of the staff favorably. A lower percentage of members (77%) rated favorably the ability to contact a physician after hours. Levels of satisfaction were essentially not explained by patient characteristics such as age, sex, geographic region, medications, or

utilization. Stepwise regression identified the ease of arranging appointments as the strongest predictor of satisfaction, with access to care and outcomes of medical care as the strongest predictor of overall satisfaction with quality of health care. These findings indicate that items that members rated least favorably, such as ability to contact a physician after hours, added little to the prediction of satisfaction with access to and quality of health care.

Keywords: <Minor> Aged^ Aged, 80 And Over^ Data Collection^ Health Services Accessibility --Trends --Td^ Middle Age^ Multivariate Analysis^ Questionnaires^ Regression Analysis^ Sampling Studies^ United States/ <Major> *Health Maintenance Organizations --Standards --St^ *Health Services Accessibility --Standards --St^ *Medicare --Standards --St^ *Patient Satisfaction --Statistical And Numerical Data --Sn^ *Quality Of Health Care.

Author: Menio DA
Title: Advocating for the rights of vulnerable nursing home residents: creative strategies
Journal: Journal of Elder Abuse and Neglect
Year: 1996
Volume: 8
Number: 3
Pages: 59-72
Abstract: Describes how advocates continued to work to effect change in a nursing home corporation prosecuted for resident neglect and abuse. Advocates with the Coalition of Advocates for the Rights of the Infirm Elderly (CARIE) in Philadelphia, Pennsylvania, urged the state Department of Health to impose appropriate sanctions, including temporary management, against the chain and to consider an applicant's quality of care history in determining whether to grant a certificate of need to construct additional nursing homes. Fines collected from the corporation in the case were used to set up an area task force on long term care issues and create a special ombudsman to monitor troubled nursing homes and advocate for isolated nursing home residents. The role of the ombudsman in inspecting facilities, interviewing residents, and meeting with management to improve care at various facilities is described. The ombudsman utilized the consulting services of geriatric nurse practitioner students in a local university nursing program to help review care at facilities.
Keywords: United States, Older Adults, Institutionalized Elderly, Frail Elderly, Nursing Homes, Pennsylvania, Advocacy, Elder Abuse, Elder Neglect, Quality Of Care, Institutional Care, Long Term Care, Ombudsman.

Author: Miller B, Campbell RT, Dav SL, Furner S Giachello A
Title: Minority use of community long-term care services: a comparative analysis
Journal: Journals of Gerontology: Series B: Psychological Sciences and Social Sciences.
Year: 1996 Mar
Volume: 51B
Number: 2
Pages: S70-S81
Abstract: Compared the use of community long term care services by minority groups across three national surveys. The analytic sample consisted of individuals aged 70 and older who had at least one limitation in activities of daily living (ADL) or instrumental ADL (IADL) and were part of the Supplement on Aging (SOA), the National Long-Term Care Survey (NLTC), or the long term care supplement of the National Medical Expenditure Survey (NMES). The comparative analyses were restricted to African Americans and whites because of the relatively few Hispanics in the SOA; combined data from all three data sets examined the Hispanic/black/white difference. No differences by race were found in use of home-based services, senior centers, or any service. Service use was higher at very low levels and at high levels of income, and lower in the middle levels. The only consistent predictors of home-based services across the three data sets were education, use of Medicaid, and number of IADL limitations. Results in the pooled analysis were similar to those identified in the individual data set analyses, increasing confidence in the validity of the results. It is concluded that blacks and whites exhibit more similarities than differences in the processes influencing use of community long term care services.
Keywords: United States, Older Adults, Long Term Care, Service Utilization, Community Services, Health

Services, Minority Groups, Racial Differences, Blacks, Whites, 70+, Income Levels, Frail Elderly, Activities Of Daily Living, Instrumental Activities Of Daily Living, Home Care, Senior Centers.

Author: Minear M, Crose R
Title: Identifying barriers to services for low-income frail elders
Journal: Journal of Gerontological Social Work
Year: 1996
Volume: 26
Number: 3-4
Pages: 57-64
Abstract: Identified barriers to service utilization by low-income frail older adults. As part of Project CARE (Community Action to Reach the Elderly), a demonstration project funded by the Administration on Aging, 30 community volunteers conducted a brainstorming session to identify barriers to service utilization by low-income frail older adults. The group identified 86 emotional barriers (such as shame, pride, frustration, and stubbornness), economic barriers (such as high costs, rising expenses, hidden expenses, and medications), physical barriers (such as transportation, inconvenience, and lack of support), knowledge barriers (such as what is available, whom to contact, and eligibility), and communication barriers (such as confusion, rude and unhelpful service providers, and lack of understanding of "aging" issues). Project CARE is now in the process of establishing a volunteer advocacy program for older adults to help alleviate these barriers.
Keywords: United States, Older Adults, Frail Elderly, Poverty, Service Utilization, Supportive Services, Service Accessibility, Social Services.

Author: Morrison BJ
Title: A research and policy agenda on predictors of institutional placement among minority elderly
Journal: Journal of Gerontological Social Work
Year: 1995
Volume: 24
Number: 1-2
Pages: 17-28
Abstract: For more than 20 years, gerontologists have struggled to explain through theory and empirical research what determines when and how elderly individuals use nursing home services. A subset of this work has focused on these questions relative to elderly from racial and ethnic minority groups.^This article examines trends in nursing home utilization by older Blacks over the decade from 1982 to 1992 and raises a number of policy issues. Three major policy areas are discussed: (1) impact of current policies and regulations governing the operation and financing of residential health care facilities on access to care for racial and ethnic "minority" groups; (2) public subsidization of nursing home care and its impact on the burden of providing care for families of color; and (3) support for and development of racial/ethnic-specific long term care services as a matter of public policy. For each of these three policy issues, a proposed research agenda is delineated.

Author: Murtaugh CM, Kemper P, Spillman BC, Carlson BL
Title: The amount, distribution, and timing of lifetime nursing home use
Journal: Medical Care
Year: 1997 Mar
Volume: 35
Number: 3
Pages: 204-218
Abstract: OBJECTIVES: Information on lifetime nursing home use is needed to design and evaluate long-term care financing reforms. Whereas a number of studies have estimated mean lifetime use or its distribution, very little is known about variation in use among subgroups of the population, the timing of use, the number of distinct episodes of care experienced by nursing home users, and the risk and expected use at ages other than age 65. The purpose of the

study was to fill these gaps in knowledge. METHODS: The study used a data base constructed to represent decedents who used nursing homes. The sample was derived from the sample of discharges collected as part of the 1985 National Nursing Home Survey. Weights were constructed for the purpose of making projections of remaining lifetime nursing home use at selected ages in 1995. RESULTS: There was considerable variation in lifetime use among demographic groups. Overall, estimates of the amount of use remaining at selected ages tended to be relatively constant at approximately 1 year. Mean years until nursing home admission, however, decreased sharply from almost 40 years at age 45 to approximately 5 years at age 85. CONCLUSIONS: The distribution of lifetime use was highly skewed, providing support for efforts to spread risk through public or private insurance. With roughly one quarter of all use occurring after 5 years of nursing home residence, however, a substantial share of use would exceed benefit maximums that are part of many proposals for public financing of long-term care as well as private insurance policies.
Keywords: <Minor> Adult^ Age Distribution^ Aged^ Aged, 80 And Over^ Databases, Factual^ Demography^ Health Services Research^ Middle Age^ Risk Factors^ Time Factors^ United States --Epidemiology --Ep/ <Major> *Long-Term Care --Utilization --Ut^ *Nursing Homes --Statistical And Numerical Data --Sn *Nursing Homes --Utilization --Ut.

Author: Norgard TM, Rodgers WL
Title: Patterns of in-home care among elderly black and white Americans
Journal: Journals Of Gerontology Series B-Psychological Sciences and Social Sciences
Year: 1997
Volume: 52
Number: 2
Pages: 93-101
Abstract: This study examines the use of informal and formal sources of care by elderly Black and White Americans (n = 2,847) who are functionally impaired and noninstitutionalized. The data are from the Asset and Health Dynamics Among the Oldest Old (AHEAD) study. Detailed baseline characteristics are provided and logistic regressions are used to assess the likelihood of (a) receiving in-home assistance from any source, (b) using any informal sources of in-home care, (c) using any formal sources, and (d) using formal sources of in-home care with informal sources of home care. Results of the logistic regressions indicate that, compared to Whites, Black elders were less likely to receive assistance and to use informal sources of home care.

Author: O'Connor DL
Title: Supporting spousal caregivers - exploring the meaning of service else
Journal: Families In Society-The Journal Of Contemporary Human Services
Year: 1995
Volume: 76
Number: 5
Pages: 296-305
Abstract: The stress associated with caring for an impaired elderly family member has been well documented. Spousal caregivers In particular may jeopardize their own health while attempting to meet the demands of caregiving. Formal support services have been developed and are aimed at reducing the stress associated with caregiving. However, simply providing services does nor ensure utilization. Research documents the low utilization of services by the elderly, particularly spousal caregivers, bur fails to explain it adequately. The author explores the gaps in current understanding of the issues and identifies the subjective meaning associated with service we as an important but overlooked determinant of service utilization. Selected case studies demonstrate the importance of this understanding for effective intervention.

Author: O'Donnell JC, Toseland RW
Title: Does geriatric evaluation and management improve the health behavior of older veterans in psychological distress?
Journal: Journal of Aging and Health

Year: 1997
Volume: 9
Number: 4
Pages: 473-497
Abstract: Examined whether receiving geriatric evaluation and management (GEM) over a 16-month period affected the health behavior of veterans experiencing psychological distress. Respondents were 160 frail veterans aged 58-86 (mean age 72.15); of these 80 received outpatient care at a GEM clinic, and 80 continued in usual primary care (UPC). This secondary analysis was part of an ongoing randomized trial of GEM initiated in 1989. The behavioral model developed by Anderson and colleagues (1968, 1973) provided the framework for this investigation. The GEM team included a geriatrician, a nurse practitioner, and a social worker who provided coordinated assessment, treatment, education, referrals, and short-term counseling. The UPC was administered at Veterans Affairs Medical Centers by internists with nursing assistance. Multivariable regression showed that GEM reduced outpatient use among veterans who scored higher on psychosomatic symptomatology, but increased outpatient use among patients with higher manifest anxiety. Higher anxiety had a negative effect on the use of medicine and surgery services among UPC patients. Findings suggest that outpatient GEM can produce beneficial changes in the use patterns of patients in psychological distress.
Keywords: United States, Older Adults, Males, Veterans, 55+, Young Old, Old Old, Health Behavior, Anxiety, Mental Disorders, Frail Elderly, Service Utilization, Health Services, Interdisciplinary Team Care.

Author: Patterson JA, Bierman AS, Splaine M, Goodlin SJ, Schreiber RJ Wasson JH
Title: The population of people age 80 and older: a sentinel group for understanding the future of health care in the United States
Journal: Journal of Ambulatory Care Management
Year: 1998 Jul
Volume: 21
Number: 3
Pages: 0-16
Abstract: Those age 80 years or older (80+) constitute a relatively small percentage of a health care system's population. However, because of the associated risks, costs, and variation of their medical care, 80+ patients are sentinel for elder care quality. This article describes the survey components of the 80+ Project. This project was designed to help clinicians gain a complete picture of the special needs of the 80+ population. The information about these patients' health and functional status, how they utilize health care resources, how they obtain access to care, and their satisfaction with the care is useful for clinicians who wish to improve health care delivery.
Keywords: Aged^ Data Collection^ Health Services Accessibility^ Health Services Needs and Demand^ Health Services Research^ Medicare^ Quality Assurance, Health Care^ United States --Epidemiology --EP/ *Aged, 80 and over^ *Health Services for the Aged --Trends --TD^ *Outcome and Process Assessment (Health Care)^ *Sentinel Surveillance.

Author: Peak T, Toseland RW, Banks SM
Title: Impact of a spouse-caregiver support group on care recipient health care costs
Journal: Journal of Aging and Health
Year: 1995 Aug
Volume: 7
Number: 3
Pages: 427-449
Abstract: Investigated the impact of support groups for spouse-caregivers of frail elderly veterans on the health care costs of care recipients. A retrospective analysis of health care costs was conducted using data from the Department of Veterans Affairs' 1988-1989 Caregiver Support Project (CSP). The 66 women who completed the CSP were spouse-caregivers of frail elderly veterans who received care at a Veterans Affairs medical center. Thirty-one women (mean age 63.71) were assigned to one of six support groups, and 35 women (mean age 66.57) were

assigned to a control condition of no support group. Support groups met regularly and included support, health education, problem solving, and stress reduction. Total health care use and cost data were calculated for each care recipient during the one-year CSP period, and parametric analyses of group differences were conducted. Results showed that 45 percent of support-group care recipients were inpatients with an average stay of 31.3 days during the study year, compared with 60 percent of control-group care recipients with an average stay of 61 days. Support-group patients averaged 26.6 outpatient visits, compared with 56.6 visits for control-group patients. Total costs for support-group patients were lower than those of control-group patients. Support-group spouses reported more positive changes in their perceptions of their husband's health and in subjective caregiving burden scores than did control-group spouses.

Keywords: United States, Older Adults, Caregivers, Caregiving Burden, Self Help Groups, Coping Behavior, Intervention Strategies, Health Service Costs, Service Utilization, Care Receivers, Wives, Veterans, Frail Elderly.

Author: Pearlman DN, Branch LG, Ozminkowski RJ, Experton B, Li Z.
Title: Transitions in health care use and expenditures among frail older adults by payor/provider type
Journal: Journal of the American Geriatrics Society
Year: 1997 May
Volume: 45
Number: 5
Pages: 550-557
Abstract: OBJECTIVES: To assess whether transitions in health care expenditures differed over time by payor/provider type: Medicare fee-for-service (FFS), Medicaid-Medicare, and Medicare HMO. DESIGN: Longitudinal study. SETTING: A large, nonprofit healthcare system in San Diego, California. PARTICIPANTS: A total of 450 frail older people who responded to the baseline and follow-up surveys and who survived the 18-month study period. MEASUREMENTS: Measures included three total expenditure categories for each 6-month period: low users (< $4000); medium users ($4000-$19,999); or high users ($20,000+). Seven conceptually meaningful expenditure trajectories over time were identified: (1) consistently low expenditures, (2) consistently medium expenditures, (3) consistently high expenditures, (4) decreasing expenditures, (5) increasing expenditures, (6) U-shaped expenditures, and (7) inverted U-shaped expenditures. MAIN RESULTS: Logistic regression analyses showed that HMO enrollees were about twice as likely as Medicaid-Medicare beneficiaries to have consistently low expenditures, but no differences were found between the FFS and HMO groups on this trajectory. Other expenditure patterns showed no significant differences by payor/provider group. Significant interactions among payor/provider type, low/medium/ high expenditure status, and time were observed for inpatient hospital care, skilled nursing/rehabilitation care, and home health care. CONCLUSION: This study illustrates the complexity of frail older people with respect to their health care expenditures and service use. Expanded efforts to control health care expenditures for frail older people should focus first on those who are dually-enrolled. In addition, because mean medical expenditures for high users enrolled in different payor/ provider groups were surprisingly similar, the data suggest that containing expenditures for individuals in the highest usage group ($20,000+) presents challenges for physicians practicing in an era of healthcare reform, regardless of payor/ provider setting.
Keywords: <Minor> Aged^ California^ Cost Control^ Fee-For-Service Plans --Economics --Ec^ Health Maintenance Organizations --Economics --Ec^ Health Services For The Aged --Utilization --Ut^ Health Status^ Logistic Models^ Longitudinal Studies^ Medicare --Economics --Ec^ United States/ <Major> *Fee-For-Service Plans --Utilization --Ut^ *Frail Elderly --Statistical And Numerical Data --Sn^ *Health Expenditures --Statistical And Numerical Data --Sn^ *Health Maintenance Organizations --Utilization --Ut^ *Health Services For The Aged --Economics --Ec^ *Medicare --Utilization --Ut.

Author: Persky NW, Burack R
Title: Predictors of mammography use in the past year among elderly women
Journal: Journal of Aging and Health
Year: 1997

Volume: 9
Number: 3
Pages: 334-354
Abstract: Thirty-two personal characteristics were examined as potential predictors of mammography use in the past year in a geriatric clinic. Interviews assessed demographic, health status, health service utilization, health belief, and psychological and social variables (n = 242, mean age = 76 years). Four variables were independently associated with mammography use in logistic regression analysis: age, historical mammography use, perceived severity, and perceived barriers. The inverse relationship between age and mammography use in the past year was not modified by health status, functional status, and the other independently predictive variables. The authors conclude that geriatrics specialty care does not eliminate the age-associated decline in mammography use that has been previously described. The factors associated with mammography use in this sample were similar to those that have been described in younger populations of women. Variables examined because of specific gerontologic considerations were not independently associated with mammography use in the past year.
Keywords: <Major Medical Term> Breast Cancer --Diagnosis --Di^Mammography/ <Minor Medical Term> Adult^Aged^Article^Cancer Diagnosis^Female^Geriatric Patient^Gerontology^Health Behavior^Health Care Utilization^Human^Major Clinical Study^Psychological Aspect^Social Aspect^Statistical Analysis.

Author: Phillips-Harris C
Title: Case management: high-intensity care for frail patients with complex needs
Journal: Geriatrics
Year: 1998 Feb
Volume: 53
Number: 2
Pages: 62-4, 67-8; quiz 69
Abstract: Case management has evolved beyond the functions of discharge planning and utilization review to a role of managing the delivery of services for populations across settings. The two forces driving this change are the growth of Medicare managed care and the increasing numbers of frail older patients with chronic disease. Necessary components of case management include a system of risk identification; an ability to link information, physicians and other providers; an interdisciplinary team approach; and the ability to follow identified older patients over time. In high intensity/low volume models, each case manager works directly with a small number of patients for a given episode of care or over time.
Keywords: <Minor> Aged^ Patient Discharge^ Risk Assessment/ <Major> *Case Management^ *Chronic Disease --Therapy --Th^ *Frail Elderly^ *Health Maintenance Organizations^ *Health Services Needs And Demand^ *Intensive Care --Utilization --Ut.

Author: Popelka MM, Cruickshanks KJ, Wiley TL, Tweed TS, Klein BE, Klein R
Title: Low prevalence of hearing aid use among older adults with hearing loss: the epidemiology of hearing loss study
Journal: Journal of the American Geriatrics Society
Year: 1998
Volume: 46
Number: 9
Pages: 1075-1078
Abstract: OBJECTIVES: To measure the prevalence of hearing aid use among older adults with hearing loss and to identify factors associated with those currently using hearing aids. DESIGN: Population-based cohort study. SETTING: The south-central Wisconsin community of Beaver Dam. PARTICIPANTS: A total of 1629 adults, aged 48 to 92 years, who have hearing loss and are participating in the Epidemiology of Hearing Loss Study and the Beaver Dam Eye Study. MEASUREMENTS: A hearing-related risk factor and medical history questionnaire, the Hearing Handicap Inventory for the Elderly (screening version), screening tympanometry, pure-tone air- and bone-conduction audiometry, and word recognition tests were administered by

trained examiners using standard protocols. RESULTS: The prevalence of current hearing aid use among those with a hearing loss (pure-tone average > 25 decibels hearing level over 500, 1000, 2000, and 4000 Hertz, worse ear) was 14.6%. The prevalence was 55% in a subset of the most severely affected participants. In univariate analyses, current hearing aid use was associated with age, severity of loss, word recognition scores, self-reported hearing loss, self-perceived hearing handicap, and history of noise exposure. Factors associated with current hearing aid use in multivariate logistic regression models were age, severity of loss, education, word recognition scores, Hearing Handicap Inventory for the Elderly (screening version) score, and self-report of a hearing loss. CONCLUSIONS: Few older adults with hearing loss are currently utilizing hearing aids. Improved screening and intervention programs to identify older adults who would benefit from amplification are needed to improve hearing-related quality of life for this large segment of the population.
Keywords: <Minor> Age Factors^ Aged^ Aged, 80 And Over^ Audiometry, Pure-Tone^ Cohort Studies^ Educational Status^ Hearing Disorders --Diagnosis --Di Hearing Disorders --Therapy --Th^ Income^ Logistic Models^ Middle Age^ Prevalence^ Questionnaires^ Risk Factors^ Wisconsin --Epidemiology --Ep/ <Major> *Hearing Aids --Utilization --Ut^ *Hearing Disorders --Epidemiology --Ep.

Author: Rabiner DJ
Title: Patterns and predictors of noninstitutional health care utilization by older adults in rural and urban America
Journal: Journal of Rural Health
Year: 1995 Fall
Volume: 11
Number: 4
Pages: 259-273
Abstract: Noninstitutional long-term care is not often included in policy studies or recommendations in the United States even though there have been recent efforts to include this type of care in health reform proposals. This study was designed to provide insight into the patterns and predictors of noninstitutional medical, home-, and community-based services utilization by older adults in rural and urban America. The National Long Term Care Survey (NLTCS) was used to explore the relationship between residential setting and subsequent noninstitutional services utilization. Weighted logistic regression procedures for complex survey designs were used to guide the analysis. Living in the Northeast and residence in moderately densely populated areas (towns, small cities, and suburbs) were significant positive predictors of subsequent medical, home-, and community-based services utilization. Because some differentials were found in access to and use of services by regional and geographic setting, policy-makers need to develop alternative strategies to eliminate inequities in the distribution of noninstitutional long-term care services in more remote areas.
Keywords: Aged^ Aged, 80 and over^ Community Health Services --Statistical and Numerical Data --SN Community Health Services --Utilization --UT^ Health Care Rationing^ Health Services for the Aged --Statistical and Numerical Data --SN^ Home Care Services --Statistical and Numerical Data --SN Home Care Services --Utilization --UT^ Long-Term Care^ New England^ Rural Health Services --Statistical and Numerical Data --SN^ Urban Health Services --Statistical and Numerical Data --SN/ *Health Services for the Aged --Utilization --UT^ *Rural Health Services --Utilization --UT^ *Urban Health Services --Utilization --UT.

Author: Rabiner DJ, Konrad TR, DeFriese GH, Kincade J, Bernard SL, Woomert A, Arcury T, Ory MG
Title: Metropolitan versus nonmetropolitan differences in functional status and self-care practice: Findings from a national sample of community-dwelling older adults
Journal: Journal of Rural Health
Year: 1997
Volume: 13
Number: 1
Pages: 14-28
Abstract: The objective of this study was to use a recent national probability survey of the noninstitutionalized older adult population to compare the functional status and self-care

practices of older adults residing in metropolitan and nonmetropolitan communities and to identify differences associated with residential location. The survey used in this study was the National Survey of Self-care and Aging (NSSCA). A cross-sectional design was employed using weighted bivariate and multivariate logistic regression analyses to examine the relationship between metropolitan and nonmetropolitan residential location and self-reported ability to perform basic, mobility, and instrumental activities of daily living (ADLs), as well as to assess the degree to which the levels and types of functional limitations affect metropolitan versus nonmetropolitan older adults' performance of self-care activities. The bivariate logistic analyses pointed to modest, often insignificant metropolitan versus nonmetropolitan differences in the ability to perform functional tasks. However, larger positive effects of nonmetropolitan residence were generally observed once other factors likely to account for some of these differences were taken into account. Older adults from nonmetropolitan areas were more likely to report being able to perform functional activities but also were more likely to report performing self-care activities both in the presence and absence of disability. This study, therefore, concluded that nonmetropolitan older adults may discount the significance of declining functional status, thus normalizing the trajectory of aging in a different way than do their metropolitan counterparts. If this process occurs, it may affect how nonmetropolitan persons use primary health care and/or long-term care services, challenging the economists' concept of demand, the clinicians' concept of need, and the policy analysts' concept of equity. Additional work is required to assess whether such a normalization process actually occurs and, if so, to explore its distribution, causes, correlates, and consequences.

Keywords: <Major Medical Term> Aging^Functional Assessment^Self Care^Urban Rural Difference/ <Minor Medical Term> Aged^Article^Community^Controlled Study^Daily Life Activity^Female^Health Care Utilization^Human^Major Clinical Study^Male.

Author: Rathore SS, Mehta SS, Boyko WL Jr., Schulman KA.
Title: Prescription medication use in older Americans: A national report card on prescribing
Journal: Family Medicine
Year: 1998
Volume: 30
Number: 10
Pages: 733-739
Abstract: Background and Objectives: Due to their high prevalence of disease, older Americans receive more prescription medication than any other age group. We evaluated prescription medication use in patients age 50 or older; categorized and reported medication use by age group, drug class, and therapeutic class; and examined differences in prescribing patterns for older patients. Methods: All prescription medications reported in the 1995 National Ambulatory Medical Care Survey, a nationally representative sample of ambulatory care visits in the United States for patients age 50 and older (n=16,289), were evaluated in a cross-sectional analysis. We evaluated the number of prescription medications reported for each patient visit and ranked use of drug and therapeutic classes. Results: Most patients seeing physicians (61%) had a prescription for at least one medication, ranging from a mean of 1.27 medications in patients ages 50-64 to 1.58 in patients over 85. Calcium channel blockers and angiotensin-converting enzyme inhibitors were prescribed more than beta blockers in all patients. Data also indicated a significant decrease in estrogen/progestin and antidepressant medication use in older patients. Conclusions: Our findings indicate prescribing patterns inconsistent with national guidelines and decreased medication use, suggesting underprescription. Active intervention may be needed to improve the pharmacological treatment of older patients.
Keywords: <Minor Drug Term> Calcium Channel Blocking Agent^Dipeptidyl Carboxypeptidase Inhibitor/ <Major Medical Term> Elderly Care^Drug Utilization/ <Minor Medical Term> Prescription ^United States^Clinical Practice^Practice Guideline^Outpatient Care ^Human ^Male ^Female ^Major Clinical Study^Controlled Study^Aged^Adult^Article.

Author: Reschovsky JD
Title: The demand for post-acute and chronic care in nursing homes
Journal: Medical Care
Year: 1998 Apr

Volume: 36
Number: 4
Pages: 475-490
Abstract: OBJECTIVES: Nursing homes provide care for persons with both post-acute and chronic conditions. In general, these two types of patients are associated with short and long stays, respectively. They also tend to be covered by different public or private insurance plans. The author investigated whether and how the demand for these two types of nursing home care differ. How alternative definitions of post-acute and chronic care nursing home stays affect estimates also was explored. METHODS: Data on a sample of elderly persons from the National Long-Term Care Channeling Demonstration was used. To account for market disequilibrium, demand was estimated using a bivariate probit with partial observability model. RESULTS: Differences were found in the demand for the two types of nursing home care. For instance, economic factors and functional and cognitive limitations were relatively more important in the demand for nursing home care for chronic conditions. Further, chronic care patients appeared more likely to face problems of access into nursing homes. Classifying nursing home stays by payer, rather than by length of stay, captured expectations at admission and appeared to reflect consumer behavior better. CONCLUSIONS: Differentiating post-acute and chronic care nursing home stays provides more meaningful information on consumer demand for nursing home care and will facilitate policy analysis in this area.
Keywords: <Minor> Aged^ Aged, 80 And Over^ Chronic Disease --Economics --Ec^ Health Services For The Aged^ Health Services Accessibility^ Health Services Needs And Demand --Economics --Ec^ Insurance Coverage^ Insurance, Long-Term Care --Utilization --Ut^ Length Of Stay --Statistical And Numerical Data --Sn^ Medicare --Utilization --Ut^ Models, Economic^ Nursing Homes --Classification --Cl Nursing Homes --Economics --Ec^ Patient Admission --Statistical And Numerical Data --Sn^ Subacute Care --Economics --Ec^ United States/ <Major> *Chronic Disease --Epidemiology --Ep^ *Health Services Needs And Demand --Statistical And Numerical Data --Sn^ *Nursing Homes --Utilization --Ut^ *Subacute Care --Utilization --Ut.

Author: Reuben DB, Schnelle JF, Buchanan JL, Kington RS, Zellman GL, Farley DO, Hirsch SH, Ouslander JG
Title: Primary care of long-stay nursing home residents: approaches of three health maintenance organizations
Journal: Journal of the American Geriatrics Society
Year: 1999 Feb
Volume: 47
Number: 2
Pages: 131-138
Abstract: OBJECTIVE: To describe the innovative programs of three health maintenance organizations (HMOs) for providing primary care for long-stay nursing home (NH) residents and to compare this care with that of fee-for-service (FFS) residents at the same NHs. DESIGN: Cross-sectional interviews and case-studies, including retrospective chart reviews for 1 year. SETTING: The programs were based in 20 community-based nursing homes in three regions (East, West, Far West). PARTICIPANTS: Administrative and professional staff of HMOs in three regions and 20 NHs; 215 HMO and 187 FFS residents at these homes were studied. MAIN OUTCOME MEASURES: Emergency department (ED) and hospital utilization. RESULTS: All HMO programs utilized nurse practitioner/physician's assistants (NP/PA), but the structural configuration of physicians' (MD) practices differed substantially. At nursing homes within each region, all three HMO programs provided more total (MD plus NP/PA) visits per month than did FFS care (2.0 vs 1.1, 1.3 vs .6, and 1.4 vs .8 visits per month; all $P < .05$). The HMO that provided the most total visits had a significantly lower percentage of residents transferred to EDs (6% vs 16%, $P = .048$), fewer ED visits per resident (0.1 vs .4 per year, $P = .027$), and fewer hospitalizations per resident (0.1 vs .5 per year, $P = .038$) than FFS residents; these differences remained significant in multivariate analyses. However, the other two programs did not achieve the same benefits on healthcare utilization. CONCLUSIONS: HMO programs for NH residents provide more primary care and have the potential to reduce ED and hospital use compared with FFS care. However, not all programs have been associated with decreased ED and hospital utilization, perhaps because of differences in structure or implementation problems.

Keywords: <Minor> Aged^ Aged, 80 And Over^ Geriatric Assessment --Statistical And Numerical Data --Sn^ Homes For The Aged --Statistical And Numerical Data --Sn^ Long-Term Care --Statistical And Numerical Data --Sn^ Nursing Homes --Statistical And Numerical Data --Sn^ Patient Care Team --Utilization --Ut^ Patient Transfer --Statistical And Numerical Data --Sn^ Retrospective Studies^ United States^ Utilization Review/ <Major> *Health Maintenance Organizations --Utilization --Ut^ *Health Services For The Aged --Utilization --Ut^ *Primary Health Care --Utilization --Ut.

Author: Rittner B, Kirk AB
Title: Health care and public transportation use by poor and frail elderly people
Journal: Social Work
Year: 1995 May
Volume: 40
Number: 3
Pages: 365-373
Abstract: Examined how the socioeconomic status of frail elderly persons in southern Florida influenced their use of health care services and whether use of public transportation affected health care service utilization. A sample of 1,083 low-income, primarily female older adults (mean age 78.9) in daytime meal programs in three metropolitan communities was recruited for study participation. Participants completed a questionnaire that gathered information on income, social service use, self-reported physical health, availability of psychological support systems, adequacy of housing, and financial resources. Results showed that most respondents had infrequent social contacts and reported their overall quality of life as either "very bad" or "bad." Nearly 78 percent rated their health as "poor" or "very poor," but fewer than half had visited a physician in the preceding 6 months. Most respondents relied on public transportation but reported a fear of being victimized. The results of multiple regression analysis indicated that gender, fear of victimization, contact with relatives, and availability of transportation services affected participants' use of regular and emergency health care. Women were more socially isolated, more afraid, and less mobile than men and were more likely to have lower levels of regular health care use than men.
Keywords: United States, Older Adults, Public Transportation, Travel Barriers, Quality Of Life, Sex Differences, Service Utilization, Health Services, Health Patterns, Fear Of Crime, Urban, Frail Elderly, Poverty, Florida, Socioeconomic Levels.

Author: Rooney EM, Studenski SA, Roman LL
Title: A model for nurse case-managed home care using televideo
Journal: Journal of the American Geriatrics Society
Year: 1997
Volume: 45
Number: 12
Pages: 1523-1528
Abstract: OBJECTIVE: To determine the feasibility of implementing a home care program, utilizing two-way interactive televideo, as a lower cost alternative to traditional in-home care. SETTING: Registered nurses used a proprietary telehome care system to provide home care services to patients in congregate senior apartments and individual patient homes during 1996. PARTICIPANTS: A total of 46 patients from five sites in Kansas and Missouri, with multiple medical problems, who were living at home, were enrolled in the program. INTERVENTION: All enrolled patients received an individualized, computer integrated, nursing care plan that utilized outcome-based clinical pathways and scheduled televideo nursing interventions. All enrolled patients received a comprehensive initial in-home assessment as well as comprehensive follow-up in-home assessments every 60 days. Patients received an average of four telehome care visits per week for an average of 12.25 minutes per visit. Nurses were estimated to be able to perform approximately 24 telehome care visits per day using the system. CONCLUSIONS: A comprehensive home care program that combines two-way interactive televideo with standardized, computerized patient assessments and care planning can provide nursing services in the home effectively. Telehome care may be a cost-effective complement to traditional, in-home care.

Author: Saag KG, Doebbeling BN, Rohrer JE, Kolluri S, Mitchell TA, Wallace RB
Title: Arthritis health service utilization among the elderly: the role o furban-rural residence and other utilization factors
Journal: Arthritis Care Res
Year: 1998 Jun
Volume: 11
Number: 3
Pages: 177-185
Abstract: OBJECTIVE: To compare the impact of urban-rural residence and other factors on the utilization of any type of arthritis-related physician care and on rheumatologist utilization. METHODS: A population-based random sample of adults 65 years of age or older with self-reported arthritis from 10 urban and 12 rural Iowa counties were surveyed by telephone interview. We estimated the arthritis prevalence and health service utilization in this sample and evaluated the effects of predisposing, enabling, and need factors on utilization and satisfaction. Health care utilization was defined as ever having visited specific types of providers for arthritis-related care. RESULTS: A total of 488 individuals participated: 227 from urban counties and 261 rural respondents. Urban respondents more commonly reported having received a diagnosis of osteoarthritis from their physicians but were less likely to report rheumatoid arthritis. A greater proportion of urban versus rural respondents had utilized any physician for arthritis care (50.7% versus 41.0%, P = 0.032) and had more often seen an orthopedist (18.1% versus 9.6%, P = 0.006) or general internist (18.5% versus 8.8%, P = 0.002). A diagnosis of rheumatoid arthritis, younger age, living with another person, higher income, and further distance from an arthritis provider were significantly associated with prior rheumatologist utilization. The strongest adjusted predictor of any physician visit for arthritis care was whether older adults drove themselves to their provider. For rheumatologist utilization, a diagnosis of rheumatoid arthritis and age were independently associated. CONCLUSIONS: The most striking finding was the consistent association of need factors (such as the desire for medical advice), joint swelling, and the presence of a diagnosis of rheumatoid arthritis with physician utilization. We identified significant urban-rural variations in factors both enabling and predisposing to arthritis care, although urban-rural status did not appear to independently influence arthritis physician utilization. In a rural state with a relatively small number of rheumatologists, deleterious enabling factors such as greater distance from the doctor and lack of supplemental insurance did not provide significant obstacles to either rheumatologist or generalist utilization.
Keywords: <Minor> Aged^ Aged, 80 And Over^ Health Care Surveys^ Iowa^ Residence Characteristics^ Rheumatology --Statistical And Numerical Data --Sn/ <Major> *Arthritis --Therapy --Th^ *Rural Health Services --Utilization --Ut^ *Urban Health Services --Utilization --Ut.

Author: Scharlach AE, Midanik LT, Runkle MC, Soghikian K
Title: Health practices of adults with elder care responsibilities
Journal: Preventive Medicine
Year: 1997 Mar-Apr
Volume: 26
Number: 2
Pages: 155-161
Abstract: BACKGROUND: This study examined health-risk behaviors and preventive health care activities among caregivers for older adults. METHODS: Survey questionnaires regarding health practices were completed by 272 caregivers and 917 noncaregivers selected through a stratified random sample of persons age 50 or older who were members of the Kaiser Foundation Health Plan in Northern California. RESULTS: Controlling for age, gender, race, education, marital status, and income level, caregivers were more likely than noncaregivers to eat breakfast daily, get flu shots, and receive pneumonia vaccines. Caregivers and noncaregivers did not differ significantly with regard to any of 10 other health practices or to the total number of positive health behaviors. Poorer health practices were associated with nonwhite racial identification, low income level, part-time employment, and health limitations. CONCLUSIONS: These findings suggest that, at least for caregivers who have

access to the extensive health promotion resources of a large health maintenance organization, caregiving responsibilities may not always have the deleterious impact on health and health practices that had previously been assumed.

Keywords: <Minor> Aged^ Aged, 80 And Over^ California^ Confidence Intervals^ Cross-Sectional Studies^ Exercise^ Health Behavior --Ethnology --Eh^ Health Maintenance Organizations --Statistical And Numerical Data --Sn^ Health Status^ Logistic Models^ Middle Age^ Risk^ Sampling Studies^ Socioeconomic Factors/ <Major> *Caregivers --Psychology --Px^ *Health Behavior^ *Preventive Health Services --Utilization --Ut^ *Risk-Taking.

Author: Schore J
Chapter: Regional variation in the use of medicare home health services
Book Title: Persons with disabilities: issues in health care financing and service delivery.
Editors: Wiener JM, Clauser SB, Kennell DL
Location: Washington, DC
Pub.: Brookings Institution
Year: 1995
Pages: 267-290
Abstract: Investigated why the use of Medicare home health care varies so widely by region and whether the corresponding variation across regions leads to differences in outcomes. A database was constructed based on a nationally representative, 10 percent random sample of beneficiaries who used home health care in 1990, 1991, or 1992. The database consisted of 634,844 home health episodes that started in those three years; the analysis of home health use measures was based on the 398,522 episodes that started in 1990 and 1991. The mean number of visits rendered during Medicare-covered episodes that started in 1990 or 1991 was 47; mean episode length was 94 days. Many fewer visits were rendered by agencies in the Pacific region (Alaska, California, Hawaii, Oregon, and Washington) and Middle Atlantic region (New Jersey, New York, and Pennsylvania), with 28 and 30 visits per episode, respectively. Many more visits were rendered by agencies in the East South Central region (Alabama, Kentucky, Mississippi, and Tennessee) and West South Central region (Arkansas, Louisiana, Oklahoma, and Texas), with 95 and 64 visits, respectively. Patients in the Middle Atlantic and Pacific regions were less frail and chronically ill than their counterparts in the South Central regions. Agencies serving patients in the South Central regions were largely proprietary, whereas those serving patients in the Middle Atlantic and Pacific regions tended to be nonprofit. Regions with the highest mean number of visits also had the highest percentage of episodes lasting longer than a year. Patients in the Pacific and Middle Atlantic regions had the lowest rates of home health care readmission, inpatient admission, and mortality, leading to a rejection of the hypothesis that low levels of home health care lead to poorer patient outcomes.
Keywords: United States, Older Adults, Medicare, Home Health Care, Health Services, Service Utilization, Geographical Differences, Frail Elderly, Chronically Ill, Functional Ability, Health Status, Home Care Agencies, Outcomes.

Author: Scott JC, Robertson BJ
Title: Kaiser Colorado's Cooperative Health Care Clinic: a group approach to patient care
Journal: Managed Care Quarterly
Year: 1996 Summer
Volume: 4
Number: 3
Pages: 41-45
Abstract: A Kaiser Permanente pilot project demonstrates that managing health status with patients on a group basis versus one-on-one office visits can improve health care delivery services and reduce unnecessary resource utilization. Kaiser's Cooperative Health Care Clinic (CHCC) in Denver, Colorado, uses a multidisciplinary team to successfully provide care to elderly members with chronic conditions.
Keywords: Activities of Daily Living^ Aged^ Aged, 80 and over^ Chronic Disease --Psychology --PX^ Colorado^ Health Care Rationing^ Health Maintenance Organizations --Standards --ST Health Maintenance Organizations --Utilization --UT^ Health Services for the Aged --Standards --ST^

Office Visits^ Patient Satisfaction^ Pilot Projects^ Program Development/ *Chronic Disease --Therapy --TH^ *Group Processes^ *Health Maintenance Organizations --Organization and Administration --OG^ *Health Services for the Aged --Organization and Administration --OG^ *Models, Organizational^ *Patient Education --Organization and Administration --OG.

Author: Shapiro E, Tate RB
Title: The use and cost of community care services by elders with unimpaired cognitive function, with cognitive impairment no dementia and with dementia
Journal: Canadian Journal On Aging-Revue Canadienne Du Vieillissement
Year: 1997
Volume: 16
Number: 4
Pages: 665-681
Abstract: Data from the Manitoba Study of Health and Aging were used to compare the utilization and direct costs of formal community care services among the elderly diagnosed as persons with no cognitive impairment, with cognitive impairment/no dementia and with dementia. The results of the analyses indicate that, in addition to living arrangement and limitation on basic and instrumental activities of daily living, mental function diagnosis is an independent predictor of community care use. A diagnosis of dementia increases the likelihood of community care use over those with unimpaired mental functioning, whereas cognitive impairment without dementia does not. The three diagnostic groups differ in the type of services used. Standardization by age, sex and the other variables which significantly affect the need for community care can help a program improve its ability to project realistic cost estimates.
Keywords: Author Keywords: Cognitive/ Community Care Use And Cost.

Author: Slivinske LR, Fitch VL, Wingerson NW
Title: The effect of functional disability on service utilization: implications for long-term care
Journal: Health in Social Work
Year: 1998 Aug
Volume: 23
Number: 3
Pages: 175-185
Abstract: The ability of elderly individuals to care for themselves and their actual patterns of long-term care services utilization were assessed. Such information is necessary to establish eligibility for access to the long-term care services network. A purposive sample of eight community-based, in-home/home health, and institutional care providers was selected. We gathered data for 547 of the 1,439 elderly consumers and obtained subjective and evaluative measures of level of functioning, including assessments of activities of daily living, instrumental activities of daily living, and demographic characteristics. Four methods of determining eligibility were compared and contrasted. Methodological issues and policy and practice implications are discussed.
Keywords: <Minor> Aged^ Analysis Of Variance^ Chi-Square Distribution^ Community Health Services --Utilization --Ut^ Discriminant Analysis^ Frail Elderly^ Health Status Indicators^ Home Care Services --Utilization --Ut^ Questionnaires^ Self Assessment (Psychology)^ Self Care^ Socioeconomic Factors/ <Major> *Activities Of Daily Living^ *Geriatric Assessment^ *Long-Term Care --Utilization --Ut.

Author: Soldo BJ, Hurd MD, Rodgers WL, Wallace RB
Title: Asset and health dynamics among the oldest old: an overview of the AHEAD study
Journal: Journal of Gerontology. Series B Psychol Sci Soc Sci
Year: 1997 May
Volume: 52
Number: Spec No
Pages: 1-20
Abstract: This chapter provides background information for the study of Asset and Health Dynamics Among the Oldest Old (AHEAD), a prospective panel survey of persons born in 1923 or earlier who were residing in the community at the time of the 1993 baseline. Interviews were sought

with both spouses in married households, and an overall total of 8,222 were completed. We review the interdisciplinary scientific issues that motivated the study, describe the fundamental design decisions that structured AHEAD, and summarize the content in the core and experimental modules. The study provides unusually detailed data on cognition, family structure and transfers, and assets. Data are presented on sample selections, response rates, and oversamples of minority groups. Basic descriptive data on the demographic, health, and socioeconomic attributes of respondents also are presented. Plans for future waves of AHEAD are described, including a next-of-kin interview for decreased respondents.

Keywords: <Minor> Aged, 80 And Over^ Data Collection^ Family^ Financing, Personal^ Health Services --Utilization --Ut^ Longitudinal Studies^ United States/ <Major> *Aged^ *Health Status^ *Income.

Author: Stafford RS, Cyr PL
Title: The impact of cancer on the physical function of the elderly and their utilization of health care
Journal: Cancer
Year: 1997
Volume: 80
Number: 10
Pages: 1973-1980
Abstract: BACKGROUND. Controversy about whether cancer has an independent impact on patient quality of life led the authors to evaluate the effects of cancer on a range of quality-of-life and health care utilization measures within an elderly population. METHODS. The authors analyzed a nationally representative sample of 9745 elderly community-based Medicare beneficiaries sampled in the 1991 Medicare Current Beneficiary Survey. Of these, 1647 reported being diagnosed by a physician as having a malignancy that was not of the skin. Multiple logistic regression was used to identify the independent predictors of functional limitation, poor health status, health care utilization, and patient satisfaction with medical care. RESULTS. Cancer was reported by 17% of the elderly. Individuals with cancer reported poorer health, more limitations of the activities of daily living (ADLs) and the instrumental activities of daily living (IADLs), and greater health care utilization than individuals without cancer. For individuals with cancer, difficulty walking (38%) and getting out of a chair (21%) were the most commonly reported ADL limitations, whereas difficulty completing heavy housework (34%) and shopping (17%) were the most common IADL limitations. Carcinomas of the lung, prostate, and colon independently predicted poorer health status. Lung carcinoma was independently associated with more ADL limitations. Lung, bladder, and prostate carcinomas predicted increased health care utilization. Overall, cancer patients were at least as satisfied with their medical care as those without cancer. CONCLUSIONS. Cancer increased the use of health care resources and modestly reduced physical function. By identifying specific connections between cancer and physical function, these findings have implications for improving cancer care.
Keywords: <Major Medical Term> Malignant Neoplastic Disease --Epidemiology --Ep/ <Minor Medical Term> Aged^Article^Bladder Carcinoma^Cancer Patient^Elderly Care^Female^Health Care Utilization^Health Status^Human^Lung Carcinoma^Major Clinical Study^Male^Medicare^Patient Satisfaction^Physical Capacity^Priority Journal^Prostate Carcinoma.

Author: Stamatiadis N, Leinbach TR, Watkins JF
Title: Travel among non-urban elderly
Journal: Transportation Quarterly
Year: 1996
Volume: 50
Number: 3
Pages: 113-121
Abstract: Investigated travel patterns of older adults in nonurban Kentucky communities. A total of 155 adults (124 females and 31 males) from two rural communities completed a travel and transportation questionnaire. They were placed into three age groups--under 75, 75-84, and 85 or older--to analyze the impact of age and gender on travel behavior. Results indicate that driving was the most frequent mode of transportation used by respondents, accounting for 48.2 percent of their trips. However, females drove only 45 percent of their trips while males drove

61 percent of the time. Dependence on friends and relatives for completing travel increased as individuals aged. Those who no longer drove depended on relatives to drive them to their destinations; they did not utilize any available public or other means of transport. As individuals aged, they tended to drive themselves less to fulfill their mobility needs and became dependent on friends and relatives to provide them with rides. It is concluded that efforts should be geared toward structuring an informal volunteer-based system to provide transportation alternatives for nonurban older adults.
Keywords: United States, Older Adults, Kentucky, Rural, 75+, 85+, Young Old, Old Old, Transportation Needs, Automobile Driving, Transportation Availability, Transportation Habits, Travel, Age Differences, Sex Differences.

Author: Steiner A
Title: Does it matter how you slice it? The relationship between population ageing and use of hospital and posthospital care in the United States
Journal: Ageing and Society
Year: 1996
Volume: 16
Number: 2
Pages: 205-232
Abstract: Explored the effects that definitions of population aging have on the images of, and subsequent responses to, demographic transition in the United States. Data were drawn from the 1988 U.S. Census and from a 20-percent, national random sample of 1.9 million Medicare patients during the same period. Logistic regression was used for a state-based, three-stage analysis of the relationship between population aging and the use of acute and postacute health services. Supply and use of acute services differed according to definitions and the way that population aging occurred. In states with a consistently large population of those aged 65 and over, providers' response was to triage services. States where younger residents left while older generations aged in place were the highest users of inpatient rehabilitation. States where population aging was a recent phenomenon were the lowest users of skilled nursing facilities and rehabilitation services. Regardless of definition, older adults in high-aging states made far greater use of posthospital home health care than those in low-aging states. All states seemed to use very old age (85 and over) as a proxy to determine who goes where, with low-aging states also affected by structural constraints at the hospital and market levels.
Keywords: United States, Older Adults, 65+, 85+, Medicare Beneficiaries, Population Aging, State, Hospital Bed Usage, Post Hospitalization Care, Home Health Care, Demography, Health Services, Hospital Services, Service Utilization.

Author: Steiner A
Title: Posthospital care for the vulnerable elderly: Are discharge patterns equitable? [DISSERTATION]
Location: Santa Monica, CA
Pub.: RAND Graduate School
Year: 1993
Abstract: Since implementation of the U.S. Medicare Prospective Payment System (PPS), patients' need for post-acute care and the importance of delivering it appropriately have increased. Yet there is disturbing evidence of variation in posthospital treatment across regions of the country and among sub-groups of elderly. This dissertation examines the factors associated with use of Medicare Part A posthospital services (skilled nursing facility, home health care, and inpatient rehabilitation) and compares both use and outcomes (readmission or death within 90 days of discharge) for patients who are aged 85-plus, female, non-white, or low-income with other Medicare patients. The data source is a 1987/88 linked episode file that combines a 20-percent national random sample of Medicare hospital and posthospital claims with provider-market, and state-level data (n=1.9 million). The primary analytic technique was logistic regression involving 60 predictor variables. Central findings are as follows: (1) Post-PPS, large variations in use of posthospital services as a function of age, gender, race, and income persist, and are associated with significant variations in outcomes; (2) The elderly poor are significantly less likely than other beneficiaries to receive inpatient rehabilitation; (3) For home health care and

rehabilitation, the greatest differences between users' and non-users' outcomes occurred for the oldest old (e.g., 90-day mortality rates for stroke patients were 25 percent for non-users versus 12 percent for users of rehabilitation care); (4) Although non-whites are disproportionately high users of home health care--and disproportionately low users of skilled nursing facility (SNF) care--white users appeared to benefit most from home health care treatment (e.g., for orthopedic diagnoses, 90-day mortality rates for non-whites were the same for users and non-users; for whites, users' death rates were 10 percentage points lower than non-users'); (5) Similarly, the mortality difference between users and non-users of home health care was greater for women than men. Findings point to inequities in selection, with the possibility that the presence of informal support may pave the way for clinically inappropriate discharge decisions.

Keywords: Aged: Medical Care, United States; Aged: Hospital Care, United States; Hospitals: United States, Prospective Payment.

Author: Strayer, MS
Title: Perceived barriers to oral health care among the homebound
Journal: Special Care in Dentistry
Year: 1995 May-Jun
Volume: 15
Number: 3
Pages: 113-118
Abstract: Evaluated the perceived homebound status, oral health status, oral health need, and barriers to receiving dental care for a group of community-dwelling frail elders. Fifty functionally dependent, primarily female elders who received at least one home-based social service completed a home-administered questionnaire and received an oral health examination. Results of nonparametric measures of data analysis showed that 60 percent (mean age 73.2) reported themselves to be homebound for 1-10 years; 40 percent (mean age 70.8) indicated that they were not homebound. Ninety percent of the homebound group reported using two or more home-based services, compared with 45 percent of the non-homebound group. Nearly 61 percent of all respondents rated their oral health as fair or poor, and 82 percent reported a perceived need for oral health care. The most frequently cited barriers to receiving oral health care were paying for services, transportation, and poor health. Results highlight the need to develop state and federal policies on oral health service delivery and reimbursement for functionally dependent, noninstitutionalized elders.
Keywords: United States, Older Adults, Oral Health, Dental Health, Dental Services, Housebound, Service Needs, Service Accessibility, Service Utilization, Frail Elderly, Noninstitutionalized Elderly, Home Health Care.

Author: Strayer MS
Title: Dental-health among homebound elderly
Journal: Journal of Public Health Dentistry
Year: 1993
Volume: 53
Number: 1
Pages: 12-16
Abstract: Currently, little is known about the oral health status, perceived oral health needs, or the extent of dental utilization among community-dwelling, functionally dependent elderly. The purpose of this study was to describe the dental health of functionally dependent elderly living at home and receiving community-based support services. The functional limitations experienced by these elderly living at home are comparable to functional limitations experienced by institutionalized elderly and these limitations impact on oral hygiene and access to dental care. Oral examinations and questionnaires were completed on 50 clients of an urban social service agency. Subjects had a mean of 8.8 teeth/person, with 44 percent completely edentulous. Two subgroups identified from the questionnaire-those who perceived themselves homebound(n=30) and those who did not (n=20), did not differ by age, gender, education level, or race. Respondents reported being homebound an average of 4.5 (+/-2.9) years. The mean decayed, filled teeth for the perceived homebound group was 5.1, and 7.3 for the group that did

not perceive themselves as homebound, with both groups averaging less than of one tooth/person with active root decay. Health care and social policy agendas must address the changing scope of oral health needs and limited access to dental care experienced by an aging population retaining more of their natural dentition.
Keywords: Author Keywords: Geriatric Dentistry/ Service Barriers/ Limited Access/ Health Services For The Aged.

Author: Strayer MS, Kuthy RA, Caswell RJ, Moeschberger ML
Title: Predictors of dental use for low-income, urban elderly persons upon removal of financial barriers
Journal: Gerontologist
Year: 1997 Feb
Volume: 37
Number: 1
Pages: 110-116
Abstract: This study examines a low-income, urban elderly population of dental and medical, nondental users. A total of 1,378 medical, nondental users and 2,086 dental users were identified using longitudinal claims data (1983-1992) from a Medicare-waiver program that reimbursed for health care services at cost. Dental users were more likely to be from a younger age cohort (born after 1910, p = .0001) and were more likely to be black (63.3% vs 35.7%, P = .0001) than medical, nondental users. Medical, nondental users had more medical visits (p = .0001), higher medical and pharmacy charges (p = .0001), and more prescriptions (p = .0001) than did the dental users. These findings indicate that among this population of urban elderly, dental users were more likely to be black and have lower medical utilization than nondental users.
Keywords: <Minor> Aged^ Aged, 80 And Over^ Dental Health Services --Economics --Ec^ Health Services For The Aged --Economics --Ec^ Logistic Models^ Longitudinal Studies^ Middle Age^ Models, Econometric^ Multivariate Analysis^ Ohio^ Sensitivity And Specificity/ <Major> *Dental Health Services --Utilization --Ut^ *Health Services For The Aged --Utilization --Ut^ *Health Services Accessibility --Economics --Ec^ *Poverty^ *Urban Health.

Author: Swartz MS, Wagner HR, Swanson JW, Burns BJ, George LK, Padgett DK
Title: Administrative update: utilization of services I. Comparing use of public and private mental health services: the enduring barriers of race and age
Journal: Community Mental Health Journal
Year: 1998
Volume: 34
Number: 2
Pages: 133-144
Abstract: Data from the NIMH-Epidemiologic Catchment Area Project were used to predict differential use of private versus public outpatient mental health services, a salient concern in integrating public and private services in market-based health care reform efforts. Having a recent psychiatric disorder, being age 25-44, female, white, of higher educational level, and unmarried increase the odds of any mental health service use. However, odds of treatment in the public sector are increased for males, African Americans, those with low educational and income levels, and odds are markedly decreased for the elderly, suggesting significant barriers to care for these mentally ill subpopulations.

Author: Tennstedt S, Chang BH
Title: The relative contribution of ethnicity versus socioeconomic status in explaining differences in disability and receipt of informal care
Journal: Journals of Gerontology - Series B Psychological Sciences and Social Sciences
Year: 1998
Volume: 53
Number: 2
Pages: S61-S70

Abstract: Data from a comparative study of 1975 African American, Puerto Rican, and non-Hispanic White persons age 60 and older in a large Northeastern city were used to investigate the relative contribution of ethnicity and socioeconomic status (SES) to explaining differences in the need for and receipt of informal care. It was hypothesized that differences in disability would be related largely to SES, whereas ethnicity would account for most of the differences in the amount of informal care. The results of a path analysis argue in favor of a cultural rather than a socioeconomic explanation for between-group differences. SES had no direct effect on disability when controlling for ethnicity. Ethnicity did explain between- group differences in the amount of care. Even when controlling for disability, elders in the two minority groups received more informal care than did older White persons. The findings illuminate the important role played by ethnicity in explaining an older person's need for and receipt of long-term care assistance.

Keywords: <Major Medical Term> Disability/ <Minor Medical Term> Ethnic Difference^Social Status ^Economic Aspect^Health Care Utilization^Negro^Caucasian^Ethnic Group ^Hypothesis ^Statistical Analysis ^Long Term Care^Human^Male^Female^Major Clinical Study ^Aged ^Adult^Article ^Priority Journal.

Author: Teresi JA (Ed.), Lawton MP (Ed.) Holmes D (Ed.) Ory M (Ed.)
Book Title: Measurement in elderly chronic care populations
Location: New York, NY
Pub.: Springer Pub. Co
Year: 1997

Abstract: Reviews measures used in chronic care settings among individuals whose assessment is complicated by factors such as frailty, cognitive impairment, and perception and communication problems. As the life span is extended, more individuals will experience chronic illness and disability that affects their quality of life and that of those around them. Better assessment methods are needed for identifying functional disorders that may be amenable to intervention and for treatment efficacy studies. This book contains 15 separately authored chapters on a broad spectrum of assessment methods, covering the topics of cognitive assessment measures for chronic care populations, measurement of communicative function in cognitively impaired older adults, vision and vision assessment, measurement of behavioral disturbances, personality assessment, assessment of depression in patients with dementia, measuring affect in frail and cognitively impaired older adults, comorbidity in Alzheimer's disease, activities of daily living (ADL) assessment measures for use with frail older adults, social support measurement in group residences, measurement of use of formal health care services, environmental assessments, health-related quality of life assessments, measurement of personal care inputs in chronic care settings, and cost measurement in institutional settings. Chapter references are included.

Keywords: United States, Older Adults, Institutionalized Elderly, Assessment, Tests, Psychological Tests, Functional Assessment, Cognitive Impairment, Vision, Behavior Problems, Personality, Depression, Emotions, Alzheimers Disease, Dementia, Comorbidity, Frail Elderly, Social Networks, Environment, Service Utilization, Quality Of Life, Institutional Care, Institutional Costs.

Author: Torrez DJ, Estes C, Linkens K
Title: The impact of a decade of policy on home health care utilization
Journal: Home Health Care Serv Q
Year: 1998
Volume: 16
Number:
Pages: 35-56

Abstract: The Medicare home health care eligibility changes, which occurred during the 1980s, were designed to make home health care more accessible to older adults. Ideally, by the 1990s, older adults in need of home health care services should no longer have encountered barriers to accessing this benefit. Therefore, an individual's need for home health care services should have been the primary determinant of service utilization. This paper examined whether need was predictive of home health care use. Client-level data on the case mix of home health care agencies in San Francisco and Philadelphia, as well as agency administrator interview data, were analyzed to determine which characteristics were the best predictors of home health care use. The regression analyses results revealed that, although client characteristics were important predictors of the amount and type of home health care services received during an episode of care, client characteristics alone did not adequately predict the amount and type of home health care services received by older adults.

Keywords: Activities of Daily Living^ Aged^ Aged, 80 and over^ Health Policy^ Health Services Needs and Demand --Statistical and Numerical Data --SN^ Home Care Services --Economics --EC^ Insurance Coverage^ Medicare --Statistical and Numerical Data --SN^ Philadelphia^ Regression Analysis^ San Francisco^ United States/ *Health Services Needs and Demand --Trends --TD^ *Home Care Services --Utilization --UT^ *Medicare --Utilization --UT.

Author: Toseland RW, O'Donnell JC, Engelhardt JB, Hendler SA, Richie JT
Title: Outpatient geriatric evaluation and management: results of a randomized trial
Journal: Medical Care
Year: 1996
Volume: 34
Number: 6
Pages: 624-640
Abstract: Compared the effectiveness and efficiency of geriatric evaluation and management (GEM) with that of usual primary care (UPC) for frail elderly outpatients. Participants were 160 community-dwelling male outpatients aged 55 and older at a Veterans Affairs medical center who had at least two functional impairments. Eighty participants (mean age 71.7) were randomly assigned to receive GEM, and 80 participants (mean age 72.6) received UPC. Patients in the GEM group received initial assessment and ongoing care from an interdisciplinary team of health professionals. Patients receiving UPC attended designated primary care clinics staffed by an internist with nursing support. At baseline and at 8 months, participants were interviewed using measures of health and functional status, psychosocial well-being, and the quality of health and social care. Additional data on health care costs and service utilization were obtained from hospital records. Results of repeated-measures multivariate analyses of variance indicated that GEM was more effective than UPC in increasing patient satisfaction, improving the quality of health and social care, and reducing mortality but was not effective in reducing health care costs or utilization.
Keywords: United States, Older Adults, Geriatric Assessment, Interdisciplinary Team Care, Outpatients, Frail Elderly, Outcomes, Health Service Costs, Veterans, Service Utilization, Quality Of Care, Males, 55+, Noninstitutionalized Elderly.

Author: Tran TV, Dhooper SS, Mcinnisdittrich K
Title: Utilization of community-based social and health services among foreign born Hispanic American elderly
Journal: Journal Of Gerontological Social Work
Year: 1997
Volume: 28
Number: 4
Pages: 23-43
Abstract: This study examined factors associated with the utilization of community-based social and hearth services among foreign born elderly Hispanic Americans. The data came from a nationwide probability sample of Hispanic Americans age 65 and order including 296 Mexico-born Mexican Americans, 571 Cuba-born Cuban Americans, and 247 respondents from other Hispanic countries. Being a Cuba-born Cuban American, living alone, having poorer serf-rated health and living below poverty level were positively related with the utilization of community-based social services. Cuban Americans with more limitations in activities of daily living (ADL) used more community-based health services. Among Mexico-born Mexican Americans, those who lived alone used more social as well as health services while those who were married used more social services. Those with greater limitations in ADL used more health services. Among other foreign born Hispanic Americans, going to church, living alone and living below poverty status, were positively correlated with the utilization of social services. Respondents

with better English language ability were less likely to use community-based health services. Elderly men and people who rated their health as poorer or had more ADL limitations were more likely to use these services. Implications of these findings for health and social services are discussed.

Author: Trude S, Colby DC
Title: Monitoring the impact of the medicare fee schedule on access to care for vulnerable populations
Journal: Journal of Health Politics, Policy and Law
Year: 1997
Volume: 22
Number: 1
Pages: 49-71
Abstract: Assessed the impact of the Medicare Fee Schedule (MFS) on access to care for vulnerable populations. Data were drawn from the Medicare Current Beneficiary Survey (MCBS) and Medicare claims. Because most of the change from the MFS occurred between 1991 and 1992, a cross-sectional analysis was done on 10,950 beneficiaries who responded to the MCBS in 1991, and a longitudinal analysis was based on 9,695 beneficiaries who responded in both 1991 and 1992. Health care utilization for vulnerable populations was examined, controlling for health status, using ordinary least squares regression. Those without private or public supplementary insurance, those with low incomes, African Americans, and those aged 85 and over had lower utilization before the MFS. The impact after implementation of the MFS on vulnerable populations was similar to that of other beneficiaries: reduced utilization in areas with fee increases and increased utilization in areas with fee decreases. An exception was that blacks, those without supplemental insurance, and those with low incomes in areas of fee decrease experienced reductions in the use of surgical services relative to their counterparts in areas with no fee change. It is suggested that these disparities are due to a variety of problems including lack of supplemental insurance, income inequalities, shortages of physicians in some areas, language barriers, racial discrimination, and cultural attitudes.
Keywords: United States, Older Adults, 65+, 85+, Young Old, Old Old, Age Differences, Poverty, Near Poor, Blacks, Racial Differences, Income Levels, Medicare, Medicare Fee Schedule, Medicare Beneficiaries, Health Services, Service Accessibility, Service Utilization, Longitudinal Study, Supplemental Medical Insurance, Uninsured.

Author: Wallace SP, Levy-Storms L, Andersen RM, Kington RS
Title: Impact by race of changing long-term care policy
Journal: Journal of Aging and Social Policy
Year: 1997
Volume: 9
Number: 3
Pages: 1-20
Abstract: Studied the utilization of formal and informal long term care (LTC) services by African American and non-Hispanic white older adults and projected the impact by race of public initiatives to both expand and restrict access to services. Data on functional ability, source of care (nursing home, paid home care, informal care, or no care), and payment source (public or private) were drawn from the 1987 National Medical Expenditure Survey for 2,257 African American and 24,274 white persons aged 65 and older. Analysis showed that whites were one-third more likely to use nursing homes than African Americans and were equally likely to use paid home care. African Americans used informal care twice as often, despite higher rates of functional disability. Overall, African Americans depended disproportionately on public programs for the formal LTC they received. In order to project the impact of three possible LTC initiatives, a model of the use of nursing homes, formal personal care, and unpaid care was estimated using multinomial logistic analysis. Findings showed that expanding public financing for formal personal care would be particularly beneficial for severely disabled whites. Eliminating Medicaid funding for these services would disproportionately affect severely disabled blacks and shift the costs of caring for about 10 percent of this group to informal caregivers. Lowering the Medicaid eligibility income level would negatively impact whites in terms of nursing home use and blacks in terms of use of both nursing homes and personal

care services.
Keywords: United States, Older Adults, Racial Differences, Public Policy, Long Term Care, Service Utilization, Blacks, Whites, Home Care, Nursing Homes, Family Assistance, Frail Elderly, Medicaid, Projection, 65+, Informal Support Systems, Financing.

Author: Wallace SP, Levy- Storms L, Kington RS, Andersen RM
Title: The persistence of race and ethnicity in the use of long-term care
Journal: J Gerontol B Psychol Sci Soc Sci
Year: 1998 Mar
Volume: 53
Number: 2
Pages: S104-S112
Abstract: We examine the use of nursing homes, formal personal care, informal Activities of Daily Living (ADL) assistance, and no care to identify racial differences in their use. Using the 1987 National Medical Expenditure Survey of both nursing homes and the community, multinominal logistic regressions controlled for predisposing, enabling, and need variables as well as other types of service use. Additional state-level variables make few changes in race/ethnicity parameters, indicating that race/ethnicity are not simply proxies for state-level variables. Older African Americans are less likely to use nursing homes than similar whites, with the lower institutionalization replaced by a higher use of paid home care, informal-only care, and no care. This suggests that formal in-home community care is not fully compensating for the racial differences in nursing home use. Persistent effects of race/ethnicity could be the result of culture, class, and/or discrimination that may impair equitable access to services.
Keywords: <Minor> Aged^ Aged, 80 And Over^ Prejudice^ United States --Ethnology --Eh/ <Major> *Aging^ *Ethnic Groups^ *Health Services Accessibility^ *Long-Term Care --Utilization --Ut^ *Racial Stocks.

Author: Wasson JH, Bubolz TA, Lynn J, Teno J
Title: Can we afford comprehensive, supportive care for the very old?
Journal: Journal of the American Geriatrics Society
Year: 1998 Jul
Volume: 46
Number: 7
Pages: 829-832
Abstract: OBJECTIVE: To address the question, "Is there enough overuse of Medicare reimbursement to hospitals that reallocation of excess could provide sufficient funds to enhance home care and community services?" DESIGN: Simulation using data from the Medicare Current Beneficiary Survey (MCBS) to estimate dollars that might be reallocated from hospital reimbursement. PARTICIPANTS: A total of 3577 persons aged 80 and older in a stratified sample of Medicare beneficiaries interviewed in September 1992 in the MCBS. MEASUREMENTS: We ranked the United States hospital service areas' (HSAs) Medicare hospital discharge rates. We assigned the beneficiaries in the MCBS to the HSAs based on their residence zip codes. The hospitalization expenditures and mortality rates of MCBS respondents living in HSAs in each quartile were compared. RESULTS: By reducing hospital utilization to the mean level now used by the lowest quartile of HSAs, $560 would be saved per Medicare beneficiary aged 80 or older (P=.004) with no difference in mortality rates. These savings could purchase 40 visiting nurse visits per year for those in need. Potential savings would be $152 per Medicare beneficiary if hospital utilization were reduced from that used by the highest quartile to the level of the lower three quartiles of HSAs, enough to purchase about 11 additional visiting nurse visits. CONCLUSION: This simulation suggests that the very old might safely receive less hospital care. Because relatively few older people need home and community services in a year, these per capita savings could be reallocated to purchase many services for those having the greatest need.
Keywords: <Minor> Aged^ Aged, 80 And Over^ Comprehensive Health Care --Statistical And Numerical Data --Sn Comprehensive Health Care --Utilization --Ut^ Health Expenditures --Statistical And Numerical Data --Sn^ Health Services For The Aged --Statistical And Numerical Data --Sn

Health Services For The Aged --Utilization --Ut^ Hospitalization --Economics --Ec Hospitalization --Statistical And Numerical Data --Sn^ Insurance, Health, Reimbursement --Economics --Ec Insurance, Health, Reimbursement --Statistical And Numerical Data --Sn^ Medicare --Economics --Ec Medicare --Statistical And Numerical Data --Sn Medicare --Utilization --Ut^ United States/ <Major> *Comprehensive Health Care --Economics --Ec^ *Health Services For The Aged --Economics --Ec.

Author: Weber R
Title: Importance of acceptance
Journal: Ageing International
Year: 1995 Mar
Volume: 22
Number: 1
Pages: 14-18
Abstract: Describes the difficulties elderly persons often confront when attempting to use technology to enhance their personal functional independence. Using evidence from a number of studies on the utilization of technology, the author discusses need, availability, functionality, and cost as major factors in the successful adaptation of technology to assist in independent living. Survey data are summarized for use of kitchen technology during meal preparation, use of bath equipment or devices, and frail elderly's use of special equipment or devices. Interviews concerning technology use with 107 frail elderly (average age 82) participants in a Florida home health care program are summarized. Results show the following: older persons will and do use both high and low technologies; the old-old are not less likely to use technology than the young-old; functionality is a primary consideration in whether a person will use technology; perceived need is a determining factor in whether a technology will be used; older persons have fewer assistive technologies than would be expected in comparison with their functional limitations; and of those persons who report having assistive technology, the majority make use of it.
Keywords: United States, Older Adults, Assistive Devices, Technology, Frail Elderly, Noninstitutionalized Elderly, Home Care, Service Utilization, Durable Medical Equipment.

Author: Wheelock I
Title: Psychodynamic psychotherapy with the older adult: challenges facing the patient and the therapist
Journal: American Journal of Psychotherapy
Year: 1997 Summer
Volume: 51
Number: 3
Pages: 431-444
Abstract: The subject of advanced age is often neglected in discussions of diversity and intersubjectivity in psychodynamic psychotherapy. In addition, psychologists historically have underestimated the ability of older individuals to utilize and benefit from psychodynamic treatment. This article provides support for the belief that many older individuals are capable of engaging in insight-oriented treatment and addresses some of the unique challenges faced by the older patient and the psychotherapist. The importance of determining the impact of age on intrapsychic conflicts is examined. Concepts from developmental psychodynamic theory are reviewed and applied to the clinical case of A., an 81-year-old widow. This case illustrates several themes that often emerge in work with older patients. The significance of changes in family structure and roles, object loss, and narcissistic injury in the life of this patient and older individuals in general is discussed.
Keywords: <Minor> Adaptation, Psychological^ Aged^ Bereavement^ Dependency (Psychology)^ Narcissism^ Object Attachment^ Parent-Child Relations^ Widowhood --Psychology --Px/ <Major> *Aged, 80 And Over --Psychology --Px^ *Psychoanalytic Therapy --Methods --Mt.

Author: White SE

Book Title: Elderly living alone in america: a portrait. Garland studies on the elderly in America
Location: New York, NY
Pub.: Garland Pub
Year: 1997
Abstract: Examined the health and home care needs of older Americans living alone in the community. Data from the National Health Interview Survey 1984 Supplement on Aging (SOA) provided detailed medical histories and health status reports for 11,497 community-dwelling individuals aged 65 and older. It was found that 32 percent of the interviewees lived alone at the time of the survey, and of this group, 80 percent were women. Individuals aged 85 and older were more likely to live alone than younger respondents, and over 80 percent of older adults that lived alone reported having no limitations of activities of daily living. Controlling for age and health, people who never married were least likely to live alone. No specific disease conditions were found to be associated with living alone. Older adults who lived alone were found to be marginally healthier than those who did not live alone. Living alone resulted in a 19 percent increase in hospital episodes and 24 percent increase in hospital stays, a 5 percent decrease in the interval between physician contacts, and a 68 percent increase in the use of community support services. A list of references is included.
Keywords: United States, Older Adults, 65+, 85+, Young Old, Old Old, Living Alone, Health Needs, Service Utilization, Health Services, Home Care, Community Services, Hospitalization, Age Differences, Marital Status, Health Status.

Author: Williams BC, Weissert WG
Title: ADL dependent people may also be sick: neglect of the "home health" population in the home care debate
Journal: Home Health Care Serv Q
Year: 1994
Volume: 14
Number: 4
Pages: 23-35
Abstract: Fear of large new public outlays have muted debate over recent proposals to expand subsidized supportive (non-medical) home care services for the elderly. Data from the billing portion of the 1984 National Long Term Care Survey demonstrate that of the approximately one million community-dwelling elderly persons whose chronic functional impairments would make them eligible for many proposed home care programs, nearly one third (31%) received services from a home health agency over a 12-month period. Since home health agencies provide substantial amounts of supportive services to enrollees, it is estimated that between three and six million non-medical visits are provided annually to chronically functionally impaired persons through home health agencies. These existent services should be taken into account in predicting the incremental public service burden and costs of proposed supportive home care programs.
Keywords: Aged^ Data Collection^ Eligibility Determination^ Evaluation Studies^ Home Care Services --Economics --EC Home Care Services --Statistical and Numerical Data --SN^ Long-Term Care --Utilization --UT^ Medicare --Statistical and Numerical Data --SN Medicare --Utilization --UT^ United States/ *Activities of Daily Living^ *Frail Elderly --Statistical and Numerical Data --SN^ *Health Services Needs and Demand --Statistical and Numerical Data --SN^ *Home Care Services --Utilization --UT.

Author: Witucki JM, Wallace DC
Title: Differences in functional status, health status, and community-based service use between black and white diabetic elders
Journal: Journal of Cultural Diversity
Year: 1998 Fall
Volume: 5
Number: 3
Pages: 94-100
Abstract: This study examined differences between 280 black and 269 white diabetic elders (n = 549) in

functional and health status and use of community-based services. Cox's Interaction Model of Client Health Behavior provided the theoretical framework. Nonparametric analysis of variance, independent groups t-tests, and chi-square statistics were used. There were no significant differences between the groups in health status or ADL difficulty as a measure of functional status. White diabetic elders had significantly more IADL difficulty. Community-based service use was significantly lower among black diabetic elders, but both groups underutilized services. Findings have implications for health care delivery systems, health policy, case management, health outcomes evaluation, and advanced practice.

Keywords: <Minor> Aged^ Aged, 80 And Over^ Analysis Of Variance^ Chi-Square Distribution^ Diabetes Mellitus, Non-Insulin-Dependent --Rehabilitation --Rh^ Incidence^ Models, Psychological^ Questionnaires^ South Carolina/ <Major> *Activities Of Daily Living^ *Blacks --Statistical And Numerical Data --Sn^ *Community Health Services --Utilization --Ut^ *Diabetes Mellitus, Non-Insulin-Dependent --Ethnology --Eh^ *Health Status^ *Patient Acceptance Of Health Care --Ethnology --Eh^ *Whites --Statistical And Numerical Data --Sn.

Author: Worcester M, Hedrick S
Title: Dilemmas in using respite for family caregivers of frail elders
Journal: Family and Community Health
Year: 1997
Volume: 19
Number: 4
Pages: 31-48
Abstract: Explored respite use for family caregivers of frail elders, using a grounded theory approach. A total of 30 caregivers (mean age 68) of veterans from a large urban outpatient clinic of a Veterans Affairs medical center formed the sample; equal numbers of caregivers of persons with chronic cognitive impairments and chronic physical impairments were selected. No significant difference was found between the two groups in age, gender, race, marital status, income, relationship to the care receiver, years of caregiving, and the number of impairments in activities of daily living (ADLs). Caregivers were interviewed three times at 2-month intervals about use of respite care. Consistent with past research, caregivers were found to infrequently use respite care; 26 of the 30 caregivers averaged less than 5 hours a week, with times usually broken into one-hour segments for activities such as grocery shopping. The respite was primarily from informal sources; formal respite sources were used by only six of the caregivers. Using a grounded theory of the process, respite use was influenced by caregivers' ways of knowing the receivers of care and concerns that potential helpers would not be aware of the complexities of care; their feelings of imposing on others; and their desire for matching the helper and the receiver for the greatest comfort of both. The processes involved in using respite more often depleted than conserved caregivers' resources and energy.
Keywords: United States, Older Adults, Respite Care, Caregivers, Frail Elderly, Veterans, Cognitive Impairment, Chronically Ill, Service Utilization.

Author: Zeiss AM, Steffen A
Title: Treatment issues with elderly clients
Journal: Cognitive and Behavioral Practice
Year: 1996
Volume: 3
Number: 2
Pages: 371-389

No N, but contrasts to next study

Abstract: Most older adults are well suited to cognitive and behavioral (CB) intervention approaches utilizing a collaborative relationship between client and therapist, explicit goal setting, and acknowledgment of the client's personal strengths. Therapists need to utilize a biopsychosocial model in working with older adults and to plan treatment with awareness of interdisciplinary principles and resources. Effective cognitive and behavioral work with the elderly depends on understanding changes in cognitive processing and learning that may be associated with age. Some modifications of cognitive and behavioral techniques to consider in work with older adults are proposed, in response to differences in learning styles, sensory deficits, and chronic health problems and to capitalize on the life experience of older adults.

MANAGED CARE

Author: Bartels SJ, Horn S, Sharkey P, Levine K
Title: Treatment of depression in older primary care patients in health maintenance organizations
Journal: International Journal of Psychiatry Medicine
Year: 1997
Volume: 27
Number: 3
Pages: 215-231
Abstract: OBJECTIVE: To examine whether older HMO patients with depression are treated differently than younger patients in terms of diagnosis, treatment by specialty provider, and pharmacotherapy. DESIGN: Chart-review, Cross sectional study. SETTING AND PARTICIPANTS: Patients were selected from six HMOs in the United States who had one or more of five medical diagnoses: arthritis, asthma, otitis media, epigastric pain/ulcer, and hypertension, (n = 9143). From this group, chart diagnoses and pharmacy records were used to identify patients who also had a diagnosis of depression (n = 416) or who had a diagnosis of depression and/or treatment with antidepressant medication (n = 1286). MEASUREMENT: Medical records and computerized service and pharmacy records were reviewed to obtain diagnoses, office visits by provider type, and psychiatric medication prescription counts. RESULTS: Significant differences were found in treatment of depression for older versus younger patients. Although depression was identified at a similar rate for both groups, older patients received fewer mental health specialty visits and fewer prescriptions for SSRI antidepressants. Older patients with a diagnosis of depression were more likely to be treated with benzodiazepines (49.2% of older vs. 33.2% of younger) though they were less likely to receive long half-life benzodiazepines. CONCLUSIONS: Psychotropic medication management is an important target for improving quality of care for older patients with depression in HMOs. Decreasing inefficient minor tranquilizer use and increasing use of newer antidepressant medications may lead to improved outcomes for older depressed adults.
Keywords: <Minor> Adult Aged Aged, 80 And Over Anti-Anxiety Agents, Benzodiazepine --Adverse Effects --Ae Anti-Anxiety Agents, Benzodiazepine --Therapeutic Use --Tu Antidepressive Agents --Adverse Effects --Ae Comorbidity Dementia --Diagnosis --Di Dementia --Psychology --Px Depressive Disorder --Diagnosis --Di Depressive Disorder --Psychology --Px Health Maintenance Organizations Middle Age Outcome Assessment (Health Care) Primary Health Care Prospective Studies Quality Assurance, Health Care Referral And Consultation Serotonin Uptake Inhibitors --Adverse Effects --Ae Serotonin Uptake Inhibitors --Therapeutic Use --Tu/ <Major> *Antidepressive Agents --Therapeutic Use --Tu *Dementia --Drug Therapy --Dt *Depressive Disorder --Drug Therapy --Dt *Geriatric Assessment *Managed Care Programs *Patient Care Team.

Author: Bierman AS, Banthin JS, Altman BM
Title: Medicare HMOs vs. FFS: health status, access to care, and patient satisfaction new insights from the 1996 Medical Expenditure Panel Survey (MEPS) [abstract].
Journal: Abstr Book Association of Health Service Research
Year: 1998
Volume: 15
Number:
Pages: 157-158
Abstract: OBJECTIVES: Medicare, the last outpost of fee-for-service medicine in the US, is moving rapidly to managed care. Monitoring the impact of this trend on beneficiaries has been hampered by the timeliness of available data and it is not clear how the rapid growth in HMO enrollment has affected Medicare beneficiaries access to satisfaction with care. Using the 1996 MEPS we identify the characteristics of beneficiaries more likely to enroll in HMOs and compare the health and functional status of HMO vs. FFS enrollees. We also examine several measures of access to and satisfaction with care, comparing HMO enrollees with those who remain in the traditional fee-for-service program. STUDY DESIGN: We use data from Rounds 1 and 2 of the household component of the 1996 Medical Expenditure Panel Survey (MEPS).

The MEPS is a nationally representative sample of the noninstitutionalized civilian U.S. population consisting of 9,500 households and 22,000 individuals and produces national estimates of the health insurance status of the U.S. population for the first half of 1996. All Medicare beneficiaries age 19 and older (n=2968) are included. We compare beneficiaries' sociodemographic characteristics, health and functional status, insurance status, and access to and satisfaction with care by HMO enrollment status. We use logistic regression to obtain age and sex adjusted odds ratios of measures of health and functional status of beneficiaries enrolled in Medicare HMOs compared to those in FFS. We also use instrumental variables techniques to control for HMO choice in a multivariate analysis of beneficiaries' access to care and satisfaction with provider. PRINCIPAL FINDINGS: Overall 14% of beneficiaries are enrolled in Medicare HMOs. Individuals aged 65-74 were more likely to be enrolled, while those over 80 years of age and the disabled (under 65) were less likely to be enrolled. There were no differences in HMO enrollment by race. Only 3.7% of rural beneficiaries compared to 17% of urban beneficiaries were enrolled in HMOs. Of particular note, low and middle income beneficiaries were less likely to enroll. For example, 40% of HMO enrollees were middle income compared to 31% in FFS, whereas 7.5% of HMO enrollees were poor compared to 12% in FFS. Since many HMOs offer premiums it is not surprising that HMO enrollees were less likely to have supplemental insurance. The dually eligible who qualify for both Medicaid and Medicare were also underrepresented among HMO enrollees. Medicare beneficiaries enrolled in HMOs were more likely to report better health status compared to beneficiaries in FFS in the five domains of health assessed: global health, physical functioning, mental health, role functioning, and social functioning. Adjusting for age and sex, HMO enrollees were less likely to report fair or poor global health or mental health compared to beneficiaries in FFS. They were less likely to report difficulty walking, bending, or stooping (OR .74, 95% CI .58, .95). HMO enrollees were also less likely to report cognitive limitations and limitations in the ability to work or do housework. Differences in access to care were seen as well in preliminary analyses. Financial barriers predominate in FFS while structural barriers are more commonly encountered in managed care. A similar proportion of enrollees in HMOs and FFS reported having difficulty obtaining care (6.2% vs. 6.8%). The primary reason for the difficulty differed. For beneficiaries in FFS cost was the primary reason given for having difficulty obtaining care (46% of those reporting difficulty). For beneficiaries in HMOs the most common reason given was that insurance did not cover the service of that a required referral could not be obtained (34% of those reporting difficulty). HMO enrollees were also more likely to encounter difficulty getting advice on the phone (23% vs. 15%). Beneficiaries in managed care and FFS were equally likely to report that they had confidence in their provider. However, HMO enrollees were somewhat more likely to report dissatisfaction with the overall quality of care (18% vs. 14% less than very satisfied). CONCLUSIONS: Medicare HMO enrollment has appealed primarily to middle income beneficiaries. Consistent with prior work, beneficiaries in HMOs are younger and healthier than beneficiaries in FFS. Beneficiaries needing help with IADLs and ADLs, who are among the costliest beneficiaries, were half as likely to be enrolled in HMOs. However, due to toal growth in HMO enrollment, the absolute number of beneficiaries from vulnerable beneficiary subgroups (poor, minority, over 85, and fair/poor health) is substantial. Financial barriers to care are more likely to be encountered in HMOs. Satisfaction with care is relatively high. Nevertheless, considerable opportunities for improvement were identified in both payment systems.

Keywords: Aged Aged, 80 and over Health Services Accessibility Income United States/ *Fee-for-Service Plans *Health Maintenance Organizations *Health Status *Medicare *Patient Satisfaction.

Author: Branch LG, Coulam RF, Zimmerman YA
Title: The PACE evaluation: initial findings
Journal: Gerontologist
Year: 1995 Jun
Volume: 35
Number: 3
Pages: 349-359
Abstract: As of mid-1994 there were nine replications of the On Lok model operating under dual capitation payments as sites in the Program of All-inclusive Care for the Elderly (PACE). A

tenth site had begun operating under capitation, but was unable to remain viable. The present descriptive study documents the growth and development of the first seven of these sites, all that had been operating under capitation during 1992. Comparisons among these sites and with On Lok are presented in the areas of organizational structure, client characteristics, approaches to case management, service delivery options, and financing. There is considerable variability in the implementation of the PACE model. Combined Medicare and Medicaid capitation monthly payments range from $2,147 to $5,973. These seven PACE sites (excluding On Lok) served a total of 888 current clients at the end of 1992, after a cumulative 136 months of experience under capitation. The very slow enrollment rates may imply that the target clients are less enthusiastic about this model than are its architects. The client selection process may suggest niche-marketing or skimming, but not the full representation of the nursing home population in their states. Given both the slow enrollment and the niche-marketing (the benevolent term) or skimming (the pejorative term) that has occurred, caution about the long-term viability of the PACE model may be warranted.

Keywords: <Minor> Aged Aged, 80 And Over Cost-Benefit Analysis Eligibility Determination Homes For The Aged --Economics --Ec Managed Care Programs --Economics --Ec Marketing Of Health Services --Economics --Ec Medicaid --Economics --Ec Medicare --Econom Ics --Ec Nursing Homes --Economics --Ec Patient Care Planning --Economics --Ec Patient Care Team --Economics --Ec Patient Satisfaction --Economics --Ec Patient Selection Program Evaluation United States/ <Major> *Capitation Fee *Frail Elderly *Health Services For The Aged --Economics --Ec *Long-Term Care --Economics --Ec.

Author: Brody K, Della Penna R, Greenlick M
Title: HMO replication of social/HMO population-based screening for frail elderly [abstract].
Journal: Abstr Book Association of Health Service Research
Year: 1997
Volume: 14
Number:
Pages: 38
Abstract: RESEARCH OBJECTIVES: To implement population-based health status screening for all Medicare members, to incorporate self-report health and functional data into the electronic medical record, and to identify potentially frail persons for community-based care plans. STUDY DESIGN: We mailed a health status questionnaire, designed by and for the Social/HMO, to all Medicare members in the Kaiser Permanente Orange County service area, optically scanned the data and computed the frailty probability score. The electronic data were formatted as a member summary which is on-line in the electronic medical record for all care providers. Summaries on the frail persons were sent directly to long-term-care managers for further assessment and care planning. Respondent data were able to link with other HMO data files. PRINCIPAL FINDINGS: The interface system for data transfers was efficient and invisible to the care delivery system. The selected frail members were appropriate for proactive care planning and monitoring. The self-report summary is an important addition to the medical record and care providers find the information valuable when establishing with new patients. The member response rate was 85%, and the frailty rate was 5%. CONCLUSIONS: Population-based screening is important beyond selection of frail members. Self-report information on health and functional disability can be used to personalize care, intervene with target subgroups such as those who have recently tried to quite smoking or have attempted to institute positive health behavior changes, to evaluate physician panels or clinic populations, to plan for population health care needs, and as a way to establish with new members. RELEVANCE TO CLINICAL PRACTICE, MANAGEMENT, AND/OR POLICY: Health care delivery needs to be tailored for special populations, and self-report data bring a wealth of information not often systematically documented. Learnings from the Social/HMO demonstration can be disseminated and efficiently replicated in other HMO settings.
Keywords: Aged Health Status Medical Record Linkage Medical Records Systems, Computerized Medicare Questionnaires United States/ *Frail Elderly *Geriatric Assessment *Health Maintenance Organizations.

Author: Brody KK, Johnson RE, Douglas Ried L

Title: Evaluation of a self-report screening instrument to predict frailty outcomes in aging populations
Journal: Gerontologist
Year: 1997
Volume: 37
Number: 2
Pages: 182-191
Abstract: Investigated the utility of a self-report screening instrument, the Health Status Form (HSF), to predict older adults at risk of frailty in the subsequent year. The HSF is an eight-page questionnaire mailed to Social Health Maintenance Organization (SHMO) members on enrollment, and annually thereafter, to identify persons with potentially severe functional impairment in need of in-home care. Data were analyzed for 5,810 respondents aged 65 and over to the 1990 HSF who were enrolled in the SHMO at Kaiser Permanente, Northwest Region. The period of prevalence of frailty was identified by tracking the members' clinical experience for 12 months (or until death), using several SHMO databases. The predictive ability of HSF data was also compared with the predictive ability of inpatient discharges and pharmacy dispensings from administrative utilization databases. Four HSF variables best predicted older members at risk of frailty: age, indicating that health conditions interfered with daily activities, needing or receiving assistance from another person for bathing, and needing or receiving assistance from another person for taking medications. This predictive model yielded sensitivity 50.7 percent, specificity 97.8 percent, and correctly classified 90.9 percent of the population. In the year prior to the HSF, the frail population used a mean of 31 pharmacy dispensings and had nearly one inpatient discharge per person, while the nonfrail had a mean of 17 dispensings and 0.3 discharges. The predictive value of the administrative data model was 20 percent less than the HSF, and the sensitivity decreased by 34 percent.
Keywords: United States Older Adults Frail Elderly 65+ Social Health Maintenance Organizations Risk Factors Screening Self Report Measures Test Validity Outcomes Drug Use Patient Discharges Models Age Differences Functional Ability.

Author: Brown DS
Title: Hospital discharge preparation for homeward bound elderly
Journal: Clinical Nursing Research
Year: 1995 May
Volume: 4
Number: 2
Pages: 181-194
Abstract: The purpose of this study was to explore hospital discharge preparation for elderly patients returning to their homes, and to examine knowledge and satisfaction outcomes. A descriptive correlational design was used in an urban health maintenance organization medical center. The convenience sample included 140 English-speaking patients with medical diagnoses. Knowledge scores were obtained for those patients who went home with a regime change, and the majority were discharged with changes in diet, medications, treatments, or activities. Medication knowledge was identified as an area that needed improvement; low scorers for medication knowledge tended to be older, less ambulatory, and had more secondary diagnoses. Patients were satisfied with the instruction that they received and perceived themselves to be prepared to continue their care at home. The ability of elderly patients to learn instruction for their continued health care is still unclear. Patients may have been too ill to learn, or length of stay may have been too short, or patients may not have had the need to learn what health care providers considered essential
Keywords: <Minor> Aged Aged, 80 And Over Educational Measurement Health Maintenance Organizations Outcome Assessment (Health Care) Questionnaires/ <Major> *Patient Discharge *Patient Education *Patient Satisfaction.

Author: Burl JB, Bonner A, Rao M, Khan AM
Title: Geriatric nurse practitioners in long-term care: demonstration of effectiveness in managed care
Journal: Journal of the American Geriatrics Society
Year: 1998 Apr

Volume: 46
Number: 4
Pages: 506-510
Abstract: OBJECTIVE: This study was undertaken to review the impact of utilizing geriatric nurse practitioner/physician (GNP/ MD) teams on cost and utilization for a cohort of Medicare HMO enrollees residing in long-term care facilities. The results would be used by the organization for further development of the GNP Program. DESIGN: A 1-year retrospective data analysis on revenues and cost for 1077 HMO enrollees residing in 45 long term-care facilities. SETTING: Proprietary and not-for-profit, licensed long term care facilities in the HMO's service area of central Massachusetts. Facilities in the study had both skilled (Medicare-certified) and custodial beds. MEASUREMENTS: Data were collected retrospectively on overall cost, revenues, emergency department (ED) transfers, hospital, and subacute days. RESULTS: Of 1077 residents, 414 were cared for by GNP/MD teams compared with 663 by physicians alone. Acute care and ED costs were significantly lower for the GNP/MD-covered patients. There was a gain of $72 per resident per month (PRPM) with the GNP/MD-covered patients compared with a loss of $197 PRPM for physicians alone. There were no significant differences in ancillary services or prescriptions. CONCLUSION: The use of GNPs in collaboration with physicians reduced ED and acute care utilization costs as well as overall costs for a cohort of HMO enrollees in long-term care. This encouraged the HMO to support the concept that all long-term care HMO residents should be covered by GNP/MD teams.
Keywords: Aged Aged, 80 and over Cohort Studies Cost-Benefit Analysis Custodial Care --Economics --EC Geriatric Assessment Health Maintenance Organizations --Economics --EC Massachusetts Medicare --Economics --E C Patient Care Team --Economics --EC United States/ *Geriatric Nursing --Economics --EC *Long-Term Care --Economics --EC *Managed Care Programs --Economics --EC *Nurse Practitioners --Economics --EC.

Author: Butler RN, Sherman FT, Rhinehart E, Klein S, Rother JC
Title: Managed care: what to expect as Medicare-HMO enrollment grows
Journal: Geriatrics
Year: 1996 Oct
Volume: 51
Number: 10
Pages: 35-42
Abstract: Managed care is restructuring the American health care system and is beginning to make inroads into the Medicare-eligible population. Advantages of managed care for older patients include an emphasis on prevention, more flexibility in care delivery, and fewer restrictions and wider coverage (eg, prescriptions) than Medicare fee-for-service, and opportunities to develop measures for quality of care. Disadvantages include limitations on access and choice and a potential for professional conflict of interest. Early managed care enrollment favors the healthy "young-old;" questions remain about whether HMOs can provide quality care to the frail elderly with complicated and expensive health care needs.
Keywords: <Minor> Aged Fees And Charges Forecasting Health Care Reform Quality Of Health Care United States/ <Major> *Health Maintenance Organizations --Statistical And Numerical Data --Sn *Health Maintenance Organizations --Trends --Td *Medicare --Statistical And Numerical Data --Sn *Medicare --Trends --Td.

Author: Clipp J
Title: Pursuing the frail elderly population
Journal: Assisted Living Today
Year: 1995 Summer
Volume: 2
Number: 4
Pages: 12-15
Abstract: Surveyed three providers of assisted living, home health care, and nursing home care and assessed the costs, value of services, and advantages and disadvantages of each type of care. The three survey respondents--Holland Home in Grand Rapids, Michigan; Willow

Lakes/Service Master Senior Living Services in Willow Grove, Pennsylvania; and Brighton Management Services, Inc., in Syracuse, New York--identified the elderly income group they were targeting, provided monthly fees for each type of care for a prototype customer, and described the perceived advantages and disadvantages of each type of care. Survey results indicated that for customers not requiring medical services, assisted living was 40 percent to 50 percent less expensive than nursing home placement. For two providers, home health care was more costly than nursing home care. Perceived advantages of assisted living included the ability to provide 24-hour care in a residential setting, generally for a lower cost than the other two alternatives for private-pay customers. Market analysis shows that only about 30 percent of persons who qualify for assisted living placement will choose assisted living. To capture a greater share of the frail elderly market, assisted living facilities must educate customers, their families, and managed care organizations about the values of assisted living. To make assisted living affordable for moderate and middle-income elders, providers should identify and pursue third-party payors (such as Medicare health maintenance organizations) and alternative payment methods.

Keywords: United States Older Adults Assisted Living Facilities Marketing Costs Frail Elderly Long Term Care Health Service Costs Nursing Homes Home Health Care Service Needs Service Demand.

Author: Coburn AF, Bolda EJ, Seavey JW, Fralich JT, Curtis D
Title: Rural models for integrating and managing acute and long-term care services [REPORT]
Location: Portland: ME
Pub.: RHRC
Year: 1998
Abstract: EXECUTIVE SUMMARY: Driven by growing demand and the need to control expenditures, states and the federal government are searching for new managed care strategies, such as capitated financing and coordinated case management, that integrate the financing and delivery of primary, acute and long term care services may help address long-standing problems of limited access to long term care services. This paper describes three examples of emerging rural systems that offer insights intc the opportunities and challenges of managing and integrating primary, acute, and long term care in rural settings. These examples include: (1) Cochise and Pinal Counties, Arizona, county-based managed care programs which, operating under the state's managed Medicaid long term care program (Arizona Long Term Care Services), manage a capitated primary, acute and long term care service network serving frail elderly and physically disabled Medicaid clients; and (2) the Carle Clinic, one of four (and the only rural) sites for the HCFA-sponsored Community Nursing Organization (CNO) demonstration. These initiatives illustrate both the delivery of rural managed care and integration models and the variety of challenges that must be faced in developing models that accommodate the realities and circumstances of rural communities and health systems. The case studies examine the importance of population size, the effects of service supply and infrastructure, the role of state and federal policies, and prior experience with managed care in the development and success of these initiatives. These demonstrations suggest that small population bases do not preclude the development of managed care programs for these populations and that various forms of risk-based financing can be used to protect providers and consumers. The introduction of managed care in Arizona has strengthened the rural, previously underserved health and long term care service systems in both Pinal and Cochise counties. Not surprisingly, the level of managed care penetration in the broader health care market and the level of provider and consumer experience with managed care are critical factors in facilitating or inhibiting the development of managed care programs for the elderly and disabled. The characteristics of the community, county, or region, including the effectiveness of local leaders, the sense of community and the degree of support for local organizations and providers, can all be critical factors in the development of these initiatives. Differences in professional cultures and mistrust between those who provide medical services and those who provide long term care are fundamental problems in integrating the financing and managing the delivery of services across these two sectors. Although experience with managed care models that integrate the financing and delivery of primary, acute and long term care services is limited, especially in rural areas, this is likely to change as states expand their use of Medicare and Medicaid, Section 1115 waiver demonstrations. Whether these programs work, how much

they cost, and whether they deliver high quality care are questions of paramount policy importance. As these initiatives are updated and evaluated, it is critical that states and the federal government carefully consider the special circumstances and need of rural communities, providers, and consumers. The experience of these suggest a variety of rural policy considerations, including: the need for states and the federal government to provide the flexibility to rural communities and providers in meeting program standards, the need for considerable technical and financial support to enable rural communities to effectively participate in these new managed care initiatives, the development of financing and service delivery arrangements that protect and strengthen the ability of local providers and organizations to participate in these new managed care initiatives, and support for the development of rural geriatric or chronic care team models that encourage professional collaboration among physicians, nurses, and other professionals and paraprofessionals working in the medical and long term care systems.

Keywords: Acute Disease Aged Arizona Disabled Persons Health Services for the Aged --Organization and Administration --OG/ *Delivery of Health Care, Integrated --Organization and Administration --OG *Long-Term Care --Organization and Administration --OG *Managed Care Programs --Organization and Administration --OG *Rural Health Services --Organization and Administration --OG.

Author: Coleman EA, Wagner EH, Grothaus LC, Hecht J, Savarino J, Buchner DM
Title: Predicting hospitalization and functional decline in older health plan enrollees: are administrative data as accurate as self-report?
Journal: Journal of the American Geriatrics Society
Year: 1998 Apr
Volume: 46
Number: 4
Pages: 419-425
Abstract: OBJECTIVE: To compare the predictive accuracy of two validated indices, one that uses self-reported variables and a second that uses variables derived from administrative data sources, to predict future hospitalization. To compare the predictive accuracy of these same two indices for predicting future functional decline. DESIGN: A longitudinal cohort study with 4 years of follow-up. SETTING: A large staff model HMO in western Washington State. PARTICIPANTS: HMO Enrollees 65 years and older (n = 2174) selected at random to participate in a health promotion trial and who completed a baseline questionnaire. MEASUREMENT: Predicted probabilities from the two indices were determined for study participants for each of two outcomes: hospitalization two or more times in 4 years and functional decline in 4 years, measured by Restricted Activity Days. The two indices included similar demographic characteristics, diagnoses, and utilization predictors. The probabilities from each index were entered into a Receiver Operating Characteristic (ROC) curve program to obtain the Area Under the Curve (AUC) for comparison of predictive accuracy. RESULTS: For hospitalization, the AUC of the self-report and administrative indices were .696 and .694, respectively (difference between curves, P = .828). For functional decline, the AUC of the two indices were .714 and .691, respectively (difference between curves, P = .144). CONCLUSIONS: Compared with a self-report index, the administrative index affords wider population coverage, freedom from nonresponse bias, lower cost, and similar predictive accuracy. A screening strategy utilizing administrative data sources may thus prove more valuable for identifying high risk older health plan enrollees for population-based interventions designed to improve their health status.

Keywords: Aged Aged, 80 and over Area Under Curve Cohort Studies Forecasting Geriatric Assessment --Statistical and Numerical Data --SN Health Promotion --Statistical and Numerical Data --SN Longitudinal Studies Reproducibility of Results Risk Assessment ROC Curve Washington --Epidemiology --EP/ *Activities of Daily Living --Classification --CL *Chronic Disease --Epidemiology --EP *Data Collection *Frail Elderly --Statistical and Numerical Data --SN *Health Maintenance Organizations --Statistical and Numerical Data --SN *Hospitalization --Statistical and Numerical Data --SN.

Author: Colenda CC, Sherman FT

Title: Managed Medicare: an overview for the primary care physician
Journal: Geriatrics
Year: 1998 Jan
Volume: 53
Number: 1
Pages: 57-63, quiz 64
Abstract: Medicare is looking to managed care to help solve its financial burden. Because managed care plans offer a number of advantages for Medicare enrollees, the number of plans and of enrollees are increasing dramatically. With some exceptions, the Medicare population appears to do as well or better in HMOs as in fee-for-service care, despite differences in utilization of services. For the primary care physician, the key to success in managed Medicare is finding and aggressively managing your frail or near frail patients. Basic tools for survival are the use of prevention strategies, screening of enrollees and targeting for needed services, geriatric assessment, use of alternate care settings to avoid or limit costly hospital care, and monitoring of medication use for compliance and adverse reactions.
Keywords: Aged Frail Elderly Geriatric Assessment Internal Medicine Managed Care Programs --Standards --ST Quality of Health Care Risk Management United States/ *Managed Care Programs *Medicare --Organization and Administration --OG.

Author: Doyle A, Masland J
Title: Managed care for the elderly in the United States: outcomes to-date and potential for future growth
Journal: Health Policy
Year: 1997 Sep
Volume: 41
Number: Suppl
Pages: S145-S162
Abstract: With the growth in frail elderly populations, health providers and policymakers are exploring new models of caring for and financing the care of disabled elders. This paper reviews innovative care programs directed toward maintaining elders with dependency-producing physical and mental disabilities in home and community-based programs, and toward minimizing the use of acute and long-term institutional care. These programs represent improvements over the traditional fragmented care and financing mechanisms by integrating patient management responsibilities into one provider organization. Some programs integrate only primary and acute care, while others integrate only the continuum of long-term care services. A third set of programs, the key focus of this paper, integrate the full continuum of care from primary through acute and long-term care services. Coupled with service integration is financial consolidation, with control over all sources of funds transferred to the managing provider along with some level of financial risk. Outcomes in terms of lowered acute care utilization and successful site duplication are described, and future prospects for program adoption on a national scale are addressed.
Keywords: Aged Aged, 80 and over Cost Control Delivery of Health Care, Integrated --Economics --EC Frail Elderly Health Care Reform Health Maintenance Organizations --Economics --EC Health Policy Health Services for the Aged --Economics --EC Home Care Services --Economics --EC Home Care Services --Organization and Administration --OG Insurance, Long-Term Care Medicaid Medicare Primary Health Care --Economics --EC Primary Health Care --Organization and Administration --OG United States/ *Delivery of Health Care, Integrated --Organization and Administration --OG *Health Maintenance Organizations --Organization and Administration --OG *Health Services for the Aged --Organization and Administration --OG.

Author: Eng C, Pedulla J, Eleazer P, Mccann R, Fox N
Title: Program of all-inclusive care for the elderly (PACE): an innovative model of integrated geriatric care and financing
Journal: Journal of the American Geriatrics Society
Year: 1997

Volume: 45
Number: 2
Pages: 223-232
Abstract: OBJECTIVES: The Program of All-inclusive Care for the Elderly (PACE) is a long-term care delivery and financing innovation. A major goal of PACE is prevention of unnecessary use of hospital and nursing home care. SETTING: PACE serves enrollees in day centers and clinics, their homes, hospitals and nursing homes. Beginning at On Lok in San Francisco, the PACE model has been successfully replicated across the country. In 1995, PACE was fully operational in 11 cities in nine states. PARTICIPANTS: To enroll in PACE, a person must be 55 years of age or older, be certified by the state as eligible for care in a nursing home and live in the program's defined geographical catchment area. PACE participants are ethnically diverse. In 1995, the average PACE enrollee was 80.0 years old and had an average of 7.8 medical conditions and 2.7 dependencies in Activities of Daily Living. A significant number have bladder incontinence (55%). Many enrollees (39%) live alone in the community, and 14% have no means of informal support. INTERVENTION: Medicare and Medicaid waivers allow delivery of services beyond the usual Medicare and Medicaid benefits. The PACE service delivery system is comprehensive, uses an interdisciplinary team for care management, and integrates primary and specialty medical care. PACE receives monthly capitation payments from Medicare and Medicaid. Patients ineligible for Medicaid pay privately. RESULTS: Outcomes of PACE programs have been positive. There has been steady census growth, good consumer satisfaction, reduction in use of institutional care, controlled utilization of medical services, and cost savings to public and private payers of care, including Medicare and Medicaid. However, starting up a PACE program requires substantial time and capital, and the model has not yet attracted large numbers of older middle income adults. CONCLUSION: The growing number of older people in the United States challenges healthcare providers and policy makers alike to provide high quality care in an environment of shrinking resources. The PACE model's comprehensiveness of health and social services, its cost-effective coordinated system of care delivery, and its method of integrated financing have wide applicability and appeal.

Author: Experton B, Branch LG, Ozminkowski RJ, Li Z
Title: Hospital readmissions of the frail elderly by payor/provider type [abstract]
Journal: AHSR FHSR Annual Meeting Abstract Book
Year: 1996
Volume: 13
Number:
Pages: 49-50
Abstract: RESEARCH OBJECTIVES: This study funded by the John A. Hartford Foundation examines whether total and preventable hospital readmissions among frail elders vary by payor/provider type. STUDY POPULATION: 450 frail elders aged 65+ who received physician-prescribed home care services, responded to the baseline and follow-up surveys, did not change payor/provider type, and who survived the 18-month study period. This analytical sample included 137 Medicare fee-for-service (FFS) beneficiaries, 200 Medicare HMO enrollees, and 113 dually enrolled Medicare-Medicaid participants. STUDY DESIGN: Hospital readmissions were defined as any hospital admission occurring within 90 days of the index hospital discharge. Preventability of readmissions was evaluated by blind clinical review. Multivariate regression analyses were conducted to determine the impact of payor/provider type on total and preventable readmissions, adjusting for baseline differences. PRINCIPAL FINDINGS: Regression analysis conducted for the entire participant sample showed that Medicare HMO enrollees were 4.16 times as likely to have one or more hospital readmissions and 3.58 times as likely to have preventable hospital readmissions than Medicare FFS participants to have both hospital readmissions and preventable hospital readmissions. The HMO appears to have served frail elderly enrollees who experience hospitalization in ways that increase -- rather than reduce -- subsequent total and preventable hospital readmissions. RELEVANCE TO POLICY, HEALTH CARE DELIVERY AND PRACTICE: HMO providers should focus their attention upon the causes of preventable hospital readmissions of their frail elderly enrollees, and strive to reduce readmission rates of their frail enrollees to at least equal that of the FFS sector
Keywords: Aged/ *Fee-for-Service Plans *Frail Elderly *Health Maintenance Organizations *Medicare *Patient Readmission --Statistical and Numerical Data --SN.

Author: Experton B, Li Z, Branch LG, Ozminkowski RJ, Mellon-Lacey DM
Title: The impact of payor/provider type on health care use and expenditures among the frail elderly
Journal: American Journal of Public Health
Year: 1997 Feb
Volume: 87
Number: 2
Pages: 210-216
Abstract: OBJECTIVES: This study examined whether health care expenditures and usage by the frail elderly differ under three payor/provider types: Medicare fee for service, Medicare health maintenance organization (HMO), and dual Medicare-Medicaid enrollment. METHODS: In-home interviews were conducted among 450 frail elderly patients of a San Diego, Calif, health care system. Cost and use data were collected from providers. RESULTS: Analyses revealed no difference in total expenditures between fee-for-service and HMO enrollees, but Medicare-Medicaid beneficiaries' expenditures were 46.8% higher than those for HMO enrollees and 52.2% higher than those for the fee-for-service group. Fee-for-service participants were less than half as likely as HMO enrollees to have two or more hospital admissions, but hospital usage rates between those two payor/provider groups did not differ. Not were there payor/provider differences in access to home health care, but HMO home health care users received significantly fewer services than the others. CONCLUSIONS: The care provided to these HMO beneficiaries resulted in a combination of restricted home health use and higher multiple hospitalizations. This raises compelling questions for future research. For the dually enrolled, stronger cost containment may be required.
Keywords: Activities of Daily Living Aged Aged, 80 and over Analysis of Variance California Fee-for-Service Plans --Economics --EC Health Maintenance Organizations --Economics --EC Health Services for the Aged --Utilization --UT Health Status Home Care Services --Utilization --UT Medicaid --Economics --EC Medicare --Econ omics --EC United States/ *Frail Elderly *Health Expenditures --Statistical and Numerical Data --SN *Health Services for the Aged --Economics --EC.

Author: Experton B, Ozminkowski RJ, Branch LG, Li Z
Title: A comparison by payor/provider type of the cost of dying among frail older adults
Journal: Journal of the American Geriatrics Society
Year: 1996 Sep
Volume: 44
Number: 9
Pages: 1098-1107
Abstract: OBJECTIVE: To compare expenditures and healthcare service use between decedents (in their last year of life) and survivors, all of whom were frail older people, under three payor/provider types. DESIGN: In-home interviews were conducted by home care nurses at baseline and at 6-month intervals for an 18-month period. Utilization and cost data were collected directly from providers and the Health Care Financing Administration for 12 months immediately before death for decedents and for the first 12 months of follow-up for survivors. SAMPLE: Five hundred seventy-seven frail older patients of an integrated healthcare system who were receiving physician prescribed home health services, under Medicare fee-for-service (FFS), Medicare HMO, or Medicare-Medicaid coverage. Frailty was defined as the receipt of physician-prescribed home healthcare services. OUTCOME MEASURES: Acute and long-term healthcare service utilization and expenditures; total healthcare expenditures. RESULTS: After controlling for baseline differences, significant differences in utilization and expenditures of survivors (n = 450) and decedents (n = 127) were demonstrated. Compared with survivors, frail older decedents were approximately: 7 times as likely to have had any hospital admissions 3 times as likely to have had one or more emergency room visits 8 times as likely to have 30 or more physician visits 4 times as likely to have been admitted to a skilled nursing facility and twice as likely to have used home health services after the baseline episode. On average, total expenditures for decedents were 276% higher than for survivors. Total expenditures for Medicaid-Medicare beneficiaries were 42% higher than expenditures for FFS participants, primarily because of higher hospitalization and emergency room expenditures. There were no

differences in utilization and expenditures between HMO enrollees and FFS beneficiaries. Finally, interactions between decedent status and payor/provider were not statistically significant in multivariate analyses. CONCLUSION: During the last year of life, frail older people exhibit the same pattern of higher expenditures and service utilization as the general Medicare population. However, differences between decedents' and survivors' healthcare expenditures and resource use did not vary by payor/provider. Thus, cost-containment strategies should focus on new forms of managing healthcare services beyond those currently practiced within Medicare HMOs, traditional FFS, or Medicare-Medicaid in California.

Keywords: Aged Aged, 80 and over Fee-for-Service Plans --Economics --EC Follow-Up Studies Health Maintenance Organizations --Economics --EC Health Services Research Home Care Services --Utilization --UT Medicaid --Economics --EC Questionnaires United States/ *Frail Elderly *Health Expenditures *Home Care Services --Economics --EC *Medicare --Economics --EC *Reimbursement Mechanisms --Economics --EC *Terminal Care --Economics --EC.

Author: Experton B, Ozminkowski RJ, Pearlman DN, Li ZL, Thompson S
Title: How does managed care manage the frail elderly? The case of hospital readmissions in fee-for-service versus HMO systems
Journal: American Journal of Preventive Medicine
Year: 1999
Volume: 16
Number: 3
Pages: 163-172
Abstract: Objectives: This study examined whether hospital readmissions varied among the frail elderly ill managed care versus fee-for-service (FFS) systems, Setting and Participants: Random sample of 450 patients, aged 65 and over, from a lar-ge vertically integrated health care system in San Diego, California. Participants were receiving physician-authorized home health and survived and 18-month follow-up period. Main Outcome Measures: Multiple logistic regression analyses were used to conduct comparisons of readmissions and preventable readmissions by plan type. Two methods to identify preventable readmissions were developed, one based on a computerized algorithm of service use patterns, and another based on blind clinical review. Results: The odds of having a preventable hospital readmission within 90 days of an index admission were 3.51 (P = 0.06) to 5.82 (P = 0.02) times as high for Medicare HMO enrollees compared to Medicare FFS participants, depending on the method used to assess preventability, Readmission patterns were similar for Medicare HMO enrollees and FFS study participants dually enrolled in Medicare and Medicaid. Conclusions: In this group of frail elderly Medicare beneficiaries, those enrolled in an HMO were more likely to have a preventable hospital readmission than those receiving care under FFS, These results suggest that policies promoting stringent approaches to utilization control (e.g., early hospital discharge, reduced levels of post-acute care, and restricted use of home health services) may be problematic for the frail elderly. (C) 1999 American Journal of Preventive Medicine.
Keywords: Author Keywords: Medicare/ Frail Elderly/ Managed Care/ Fee-For-Service/ Hospital Readmission/ Preventable Hospitalization.

Author: Experton B, Pearlman DN, Branch LG, Li Z, Ozminkowski R
Title: Transitions in health care use and expenditures among the frail elderly by payor/provider type [abstract].
Journal: AHSR FHSR Annual Meeting Abstract Book
Year: 1995
Volume: 12
Number:
Pages: 45-46
Abstract: PROBLEMS AND OBJECTIVES. This Hartford Foundation funded study examined the relationship between payor/provider source and transitions in health care expenditures over three six-month intervals for a community-resident frail elderly population. DATA AND METHODS. Participants were 450 frail elderly aged 65+ receiving physician prescribed home health care services who survived the 18-month study period. We classified respondents' six-

month health care expenditures as: Low/no hospital admissions (<$2,000); Moderate ($2,000-$19,000); or High ($20,000+). Seven outcome measures were created from twenty-seven trajectories or health care costs: (1) consistently low, (2) consistently moderate, (3) consistently high, (4) decreasing, (5) increasing, (6) U-shaped and (7) inverted U-shape. Logistic regression analyses were used to assess the relationship between payor/provider source and the seven dependent variables. RESULTS AND CONCLUSIONS. Compared to the dually-enrolled, HMO enrollees were 2.8 times as likely to have consistently low expenditures. Both FFS enrollees and dually-enrolled beneficiaries were 1.8 times as likely to have declining expenditures than HMO participants. Other trajectories showed no significant differences by payor/provider type, except consistently medium expenditures. IMPLICATIONS FOR AUDIENCE. It is clear that managed care networks achieved the best outcome in responding to the needs of frail elderly -- keeping costs consistently low over 18 months. In contrast, the fee for service system achieved the next best possible outcome -- reducing health care expenditures over time by controlling costs for high cost services, particularly hospital and nursing home care.

Keywords: Aged Home Care Services --Economics --EC/ *Fee-for-Service Plans --Economics --EC *Frail Elderly *Health Expenditures *Health Maintenance Organizations --Economics --EC *Health Services --Utilization --UT.

Author: Fama T, Fox PD
Title: Efforts to improve primary care delivery to nursing home residents
Journal: Journal of the American Geriatrics Society
Year: 1997 May
Volume: 45
Number: 5
Pages: 627-632
Abstract: OBJECTIVE: To describe a primary care practice model used by health maintenance organizations (HMOs) that serve medicare beneficiaries to improve the provision of primary care to nursing home residents. PARTICIPANTS: Medicare beneficiaries who reside in nursing homes and who are enrolled in HMOs. CONCLUSION: Several HMOs are using physician-nurse practitioner teams to provide primary care to nursing home residents. The potential to improve the delivery of these services in nursing homes, particularly to long-stay residents, is apparent. However, obstacles arise in developing this practice model in HMOs, including difficulty recruiting both nurse practitioners and physicians and the lack of HMO-based research on the effects of such a model.
Keywords: <Minor> Aged Aged, 80 And Over Fee-For-Service Plans Long-Term Care --Standards --St Medicare Models, Organizational Nursing Homes --Economics --Ec Patient Care Team United States/ <Major> *Health Maintenance Organizations --Standards --St *Nursing Homes --Standards --St *Primary Health Care --Standards --St *Quality Assurance, Health Care --Organization And Administration --Og.

Author: Farley DO, Zellman G, Ouslander JG, Reuben DB
Title: Use of primary care teams by HMOs for care of long-stay nursing home residents
Journal: Journal of the American Geriatrics Society
Year: 1999 Feb
Volume: 47
Number: 2
Pages: 139-144
Abstract: OBJECTIVE: To characterize the use of formal primary care programs by health maintenance organizations (HMOs) for their members who are long-stay residents of nursing homes. DESIGN: Using mail survey techniques, 34 Medicare risk-contracting HMOs with the largest Medicare beneficiary enrollments were asked to complete a written questionnaire. HMOs were asked how they evaluate care in nursing home settings and whether they operate a formal primary care program for members who are long-stay nursing home residents. Those reporting they had programs were asked about the program features, participation in the program, roles performed by clinical practitioners, and clinical caseloads. Surveys were completed by 21 (61.8%) of the HMOs. PARTICIPANTS: HMO management personnel who know the primary care programs the HMOs operate in affiliated nursing homes. MEASUREMENTS: Descriptive

summaries of the HMOs' responses to the survey questions were generated. For HMOs with primary care programs, caseloads of physicians and nurse practitioners were estimated using survey data reported by the HMOs. RESULTS: Eight (38.1%) of the responding HMOs operate formal primary care programs in affiliated nursing homes. HMOs with programs consider more factors than non-program HMOs in evaluating care for nursing home residents. Reasons cited most frequently for not having a program are costs and too few nursing home residents. The most common primary care program features are designated physicians and use of physician extenders. CONCLUSIONS: Survey findings point to the potential importance of formal HMO primary care programs for long-term nursing home residents, which may expand with growth in the older population and Medicare-managed care. Program adoption, however, may depend on sufficient resident participation to be financially feasible.

Keywords: Aged Aged, 80 and over Geriatric Assessment --Statistical and Numerical Data --SN Homes for the Aged --Statistical and Numerical Data --SN Nursing Homes --Statistical and Numerical Data --SN Program Evaluation United States Utilization Review/ *Health Maintenance Organizations --Utilization --UT *Health Services for the Aged --Utilization --UT *Long-Term Care --Statistical and Numerical Data --SN *Patient Care Team --Utilization --UT *Primary Health Care --Utilization --UT.

Author: Fillit H, Knopman D, Cummings J, Appel F
Title: Opportunities for improving managed care for individuals with dementia: part 1 - the issues
Journal: American Journal of Managed Care
Year: 1999
Volume: 5
Number: 3
Pages: 309-315
Abstract: In this first part of a two-part article, we review the prevalence of, costs associated with, and treatments for Alzheimer's disease and related dementias, a leading cause of disability in the elderly. New, innovative, and costly drugs to combat dementia are being introduced, causing pharmacy costs to rise. These new drugs, however, may reduce overall medical costs and improve the quality of life of patients with dementia and their caregivers. Issues of cost, excessive service utilization, and quality of life will have significant impact on managed care organizations in the near future as the rapidly aging population experiences significant disability and illness related to dementia. In the second part of this article, we describe the framework for a disease management program for patients with dementia, similar to programs in existence for diabetes and other chronic diseases, that could enable managed care organizations to effectively care for these patients.

Author: Friedland RB, Feder J
Title: Managed care for elderly people with disabilities and chronic conditions
Journal: Generations
Year: 1998
Volume: 22
Number: 2
Pages: 51-57
Abstract: Discusses the provisions of managed care for older adults with disabilities and chronic conditions. Two approaches to public managed care programs are being pursued for this group of older adults: managed acute care and managed acute and long term care in combination. Relatively few chronically ill or disabled older adults are enrolled in managed acute care plans. This situation is likely to change as enrollment grows and enrollees get older. Overall, access to care does not seem to be impaired and in some aspects is improved. However, the intensity of that care is different. Although lower service intensity may not impose a problem for most enrollees, for the chronically ill or disabled it may be quite problematic. In the combination of acute and long term care, there are questions about savings and, as in acute managed care, concerns about management. Medicare and Medicaid cover very different populations, suggesting the need to organize and deliver care differently for different populations. Current payment arrangements for managed care plans create strong incentives to reduce service. Where service is critical, as for older and disabled populations, these incentives may be so

strong as to threaten quality of care. Furthermore, commercial managed care plans, organized to serve the under-65 employed population, may be poorly equipped for and unwilling to invest in managing the special care needs of older adults with disabilities or chronic conditions. It is suggested that payment strategies and organizational structures that promote management at less risk to patients deserve more attention.

Keywords: United States Older Adults 65+ Disabled Chronically Ill Frail Elderly Managed Care Medicare Medicaid Acute Diseases Long Term Care Health Service Costs Service Delivery Service Accessibility Quality Of Care Reimbursement.

Author: Futterman R, Fillit H, Roglieri JL
Title: Use of ineffective or unsafe medications among members of a Medicare HMO compared to individuals in a Medicare fee-for-service program
Journal: American Journal Of Managed Care
Year: 1997
Volume: 3
Number: 4
Pages: 569-575
Abstract: Adverse drug reactions and inappropriate prescribing practices are an important cause of hospitalization, morbidity, and mortality in the elderly. This study compares prescribing practices within a Medicare risk contract health maintenance organization (HMO) in 1993 and 1994 with prescribing practices for two nationally representative samples of elderly individuals predominantly receiving medical care within the Medicare fee-for-service sector. Information on prescriptions in the fee-for-service sector came from the 1987 National Medical Expenditures Survey (NMES) and the 1992 Medicare Current Beneficiary Survey (MCBS). A total of 20 drugs were studied; these drugs were deemed inappropriate for the elderly because their risk of causing adverse events exceeded their health benefits, according to a consensus panel of experts in geriatrics and pharmacology. One or more of the 20 potentially inappropriate drugs was prescribed to 11.53% of the Medicare HMO members in 1994. These medications were prescribed significantly less often to HMO members in 1994 than to individuals in the fee-for-service sector, based on information from both the 1987 NMES and the 1992 MCBS. Utilization of unsafe or ineffective medications actually decreased with increasing age in the HMO sample, with lowest rates in individuals over the age of 85. However, no relationship between age and medication use was seen in the NMES study, except for individuals over the age of 90 years. The study data support the conclusion that ineffective or unsafe medications were prescribed less often in the Medicare HMO than in national comparison groups. In fact, for the very old, who are most at risk, the use of these medications was much lower in the Medicare HMO than in the Medicare fee-for-service sector. Nevertheless, in 1994, approximately one of every nine members of this Medicare HMO received at least one such medication. Continued efforts and innovative strategies to further reduce the use of unsafe and ineffective drugs among elderly Medicare HMO members are needed.

Author: Gazmararian JA, Baker DW, Williams MV, Parker RM, Scott TL, Green DC, Fehrenbach SN, Ren J, Koplan JP
Title: Health literacy among Medicare enrollees in a managed care organization
Journal: Journal of the American Medical Association
Year: 1999
Volume: 281
Number: 6
Pages: 545-551
Abstract: Context Elderly patients may have limited ability to read and comprehend medical information pertinent to their health, Objective To determine the prevalence of low functional health literacy among community-dwelling Medicare enrollees in a national managed care organization. Design Cross-sectional survey. Setting Four Prudential HealthCare plans (Cleveland, Ohio; Houston, Tex; south Florida; Tampa, Fla). Participants A total of 3260 new Medicare enrollees aged 65 years or older were interviewed in person between June and December 1997 (853 in Cleveland, 498 in Houston, 975 in south Florida, 934 in Tampa); 2956 spoke English and 304 spoke Spanish as their native language. Main Outcome Measure Functional health literacy as

measured by the Short Test of Functional Health Literacy in Adults. Results Overall, 33.9% of English-speaking and 53.9% of Spanish-speaking respondents had inadequate or marginal health literacy. The prevalence of inadequate or marginal functional health literacy among English speakers ranged from 26.8% to 44.0%. In multivariate analysis, study location, race/language, age, years of school completed, occupation, and cognitive impairment were significantly associated with inadequate or marginal literacy. Reading ability declined dramatically with age, even after adjusting for years of school completed and cognitive impairment, The adjusted odds ratio for having inadequate or marginal health literacy was 8.62 (95% confidence interval, 5.55-13.38) for enrollees aged 85 years or older compared with individuals aged 65 to 69 years. Conclusions Elderly managed care enrollees may not have the literacy skills necessary to function adequately in the health care environment. Low health literacy may impair elderly patients' understanding of health messages and limit their ability to care for their medical problems.

Author: Hallfors D, Leutz W, Capitman J, Ritter G
Title: Stability of frailty in the social/health maintenance organization
Journal: Health Care Financing Review
Year: 1994 Summer
Volume: 15
Number: 4
Pages: 105-116
Abstract: Tested the stability of disability among social/health maintenance organization (SHMO) members who were judged eligible for admission into a nursing home. The SHMOs employ a widely used approach for determining service and payment eligibility--the concept of "nursing home certified" (NHC). NHC classifications in three SHMO sites were analyzed for a one-year period. Data were from the SHMO Consortium Data Base. A total of 2,541 members who had been categorized as NHC at least once from 1985 to 1989 were identified and reassessed quarterly. By the end of one year, less than 50 percent were still considered to be nursing home eligible. A second sample provided a richer, but smaller data set, based on comprehensive assessment form information. Logistic regression models were applied with each of the two samples to determine factors that predict stability of NHC. As expected, evidence of an acute condition immediately prior to an enrollee's first NHC was associated with instability. Evidence of a more chronic and/or severe disabling condition was related to stability of NHC status. Previous hospitalization as a marker for an acute episode proved the strongest single variable predicting instability. Findings suggest that quarterly recertifications are important in determining accurate frailty status and eligibility for the higher Medicare rate. Other policy implications for capitated managed-care programs for the elderly are discussed.
Keywords: Social Health Maintenance Organizations Frail Elderly Disabilities Institutionalization Long Term Care Nursing Homes Eligibility Determination Longitudinal Study Medicare United States Older Adults.

Author: Harrington C, Newcomer RJ, Preston S
Title: A comparison of S/HMO disenrollees and continuing members
Journal: Inquiry
Year: 1993 Winter
Volume: 30
Number: 4
Pages: 429-440
Abstract: Four Social/Health Maintenance Organization demonstration projects had disenrollment rates of about 8.6% annually during the first 36 months. This study compares those who disenrolled to those who remained S/HMO members. The analysis found that S/HMOs sponsored by HMOs had lower disenrollment than S/HMOs sponsored by long-term care organizations. The major reasons for disenrollment were dissatisfaction with physician services and premium costs. Having other insurance, not living alone, having inadequate information upon enrollment, having no physical impairments or health problems, and no use of hospital or chronic care were found to be positive predictors of disenrollment. Switching from the S/HMO to another HMO rather than to fee-for-service was associated with having no health problems, having no

other health insurance, living alone, and being married.

Keywords: Aged Aged, 80 and over Capitation Fee Costs and Cost Analysis Health Maintenance Organizations --Organization and Administration --OG Health Services Research Health Status Hospitalization Logistic Models Long-Term Care --Utilization --UT Marital Status Organizational Objectives Patient Satisfaction --Economics --EC Sampling Studies Socioeconomic Factors United States/ *Comprehensive Health Care --Standards --ST *Health Maintenance Organizations --Utilization --UT *Medicare --Organization and Administration --OG *Patient Satisfaction.

Author: Hornung CA, Eleazer GP, Strothers HS, Wieland GD, Eng C, Mccann R, Sapir M

Title: Ethnicity and decision-makers in a group of frail older people

Journal: Journal of the American Geriatrics Society

Year: 1998

Volume: 46

Number: 3

Pages: 280-286

Abstract: OBJECTIVE: To assess the relationship between ethnicity and decision-makers expressing healthcare wishes in a group of frail older persons enrolled in the Program of All-inclusive Care for the Elderly (PACE). DESIGN: A retrospective chart review of 1193 participants in the PACE program. SETTING: Program of All-inclusive Care for the Elderly, a comprehensive managed care demonstration program serving frail older participants at 10 sites across the nation. PARTICIPANTS: A total of 1193 older adults, all of whom met state criteria for nursing home level of care. Three hundred were non-Hispanic whites, 364 were black, 156 were Hispanic, and 288 were Asian. MEASUREMENTS: Demographic characteristics of the patients and the presence or absence of an alternative decisionmaker; the characteristics of alternative decision-makers included the relationship to the participant as recorded in the patient's medical record. RESULTS: Ninety-one percent of white patients expressed their own healthcare wishes in contrast to only 85% of Hispanic, 83% of Asian, and 67% of black patients. An alternative decision-maker was identified for about 15% of Asians and Hispanics and for one-third of blacks, but only about 8% of whites had an alternative decision-maker. Black and Hispanic patients were most likely to have a daughter as an alternative decision-maker, Asians were most likely to have a son, and whites patients were most likely to have a spouse as an alternative decision-maker. Blacks, particularly black men, were the most likely to have a relative other than a spouse or child as an alternative decision-maker. CONCLUSIONS: In this population, we found significant ethnic variation in the person identified to be the decisionmaker in a group of frail older people. Ethnic variation reflected sociodemographic as well as cultural differences. However, there are important limitations to this study, and caution should be used in extrapolating the results to other populations or in attributing the results to ethnicity alone. An awareness of cross-cultural patterns in identified or de facto decision-makers can be significant for healthcare workers when they approach patients and their families about issues surrounding end of life decisions

Author: Hughes SL

Title: Impact of expanded home care models

Journal: Social Work Research

Year: 1997

Volume: 21

Number: 3

Pages: 165-172

Abstract: Summarizes four studies that assess the effect of home health care models that provide more flexible home care benefits to chronically ill older adults than the current restrictive Medicare home health care model. The four studies (two complete and two ongoing), conducted by the author and colleagues, include the following: an evaluation of the Five Hospital Program in Chicago, which was designed to provide continuity of care for frail elderly adults who had chronic illnesses but did not meet the Medicare skilled home care requirements; a clinical trial evaluating the team-managed hospital-based home care (TM/HBHC) model at the Hines Veterans Affairs (VA) Hospital, which targeted programs to two groups of hospitalized veterans who were believed to be at high risk of rehospitalization; a replication and test of the TM/HBHC model at 15 VA hospitals across the country; and a test of the TM/HBHC model in a private hospital with patients with total joint replacements and congestive heart failure. The review demonstrates that current home care models vary considerably with respect to objectives, patient target populations, types of services provided, and plausible patient outcomes. Demonstrations and evaluations must be carefully tailored to reflect this complexity. The enrollment of significant numbers of Medicare beneficiaries in health maintenance organizations (HMOs) offers considerable opportunity for Medicare HMOs to develop and test more flexible, comprehensive, continuous, and still cost-effective home care models

Keywords: United States Older Adults Home Care Models Outcomes Service Delivery Gerontological Research Health Maintenance Organizations Controlled Clinical Trials Veterans Administration Hospitals Veterans Program Evaluation Medicare Social Work.

Author: Johnson RE, Douglas Ried L, Vogt TM
Title: Comparing health-related indicators of very old hypertensives and nonhypertensives in an HMO
Journal: Journal of Aging and Health
Year: 1994 Nov
Volume: 6
Number: 4
Pages: 535-548
Abstract: Investigated whether very old adults with hypertensive illness were sicker and in poorer health than very old adults without hypertension. The study population included 613 enrollees of a social/health maintenance organization (S/HMO) who were aged 85 and older and who responded to an annual questionnaire in 1990 and who had one full year of enrollment in the S/HMO prior to the questionnaire. Data were obtained from various automated administrative databases maintained by the S/HMO. Participants were classified as hypertensive (HT) or nonhypertensive (NHT), using data from the outpatient prescription system and the S/HMO database. Very old male HTs reported more major comorbidities and more drug use associated with those morbidities, were more likely to have an office visit, tended to have a lower self-reported health status, and tended to have more functional difficulties than was reported by very old male NHTs. Overall, findings suggest that very old male HTs were sicker and less functional than the NHT males. Among very old females, the findings were the opposite. Very old female HTs reported a somewhat better health status, less potential cognitive impairment, and less need of devices to assist physical functioning, and they were less likely to die in the following year than were very old NHT females. Thus, among very old females, those with hypertension were as healthy and perhaps somewhat healthier than were very old NHT females. It is suggested that hypertension may be a more serious condition among very old males than very old females, treatment may be more efficacious (or prevalent) for very old HT females, or increased blood pressure among very old females may have some positive benefits among selected subgroups.
Keywords: United States Older Adults Hypertension Sex Differences Females Males 85+ Health Status Functional Ability Health Behavior Physical Condition.

Author: Joseph JM
Title: Keeping pace with legal issues
Journal: Provider
Year: 1998
Volume: 24
Number: 8
Pages: 61-62
Abstract: Provides an overview of the legal issues involved for providers of programs of all-inclusive care for the elderly (PACE). PACE is an insurance-type option offered to seniors who are nursing-facility eligible; it is paid for by participating Medicare and Medicaid programs. In many ways it is similar to an HMO, but it is more comprehensive than any HMO because it includes long term care. Also, it focuses on a narrow segment of the population. The program is designed to provide a multidisciplinary approach to caring for frail seniors. Those enrolled in PACE would

otherwise require skilled nursing facility care. Most enrollees receive day care at PACE centers and return to their own homes in the evening. Enrollees look to this program to provide for all of their medical needs, including hospitalization. Topics covered include legal and structural considerations; service and provider contracts; steps to reduce liability; competency, guardianship proceedings, and the grievance-and-appeals process; and comprehensive United States Older Adults Frail Elderly Managed Care Long Term Care Day Care Services Health Insurance Medicare Medicaid Legal System Liabilities Medical Records Legal Competency Guardianship Contracts Program Management Waivers, medical records and compliance with state and federal laws.

Author: Lachs MS, Ruchlin HS
Title: Is managed care good or bad for geriatric medicine?
Journal: Journal of the American Geriatrics Society
Year: 1997 Sep
Volume: 45
Number: 9
Pages: 1123-1127
Abstract: This article uses clinical vignettes to examine the simultaneous dangers and opportunities that managed care brings to geriatric medicine. While the complex multifactorial syndromes prevalent in older adults might at first glance seem poorly handled under capitation, we argue that the incentives provided under existing delivery systems can be equally perverse. These improper incentives have arisen from (1) the fee-for-service payment mechanism itself, which has spawned a subspecialty culture ill-equipped to deal with the primary care needs of older adults and (2) the fragmentation of funding sources for geriatric care into two major payers (Medicare and Medicaid), encouraging providers to focus on cost shifting rather than the logical integration of services. The result has been a delivery system that provides little impetus to maximize functional status, the central goal of modern geriatric medicine. Because physicians may assume financial risk under global capitation, and because the cost of caring for a frail older adult is inversely related to functional status, managed care offers the potential to align the goals of cost containment with the goals of modern geriatric medicine. Physicians should have a substantive voice in the design and implementation of these systems.
Keywords: <Minor> Aged Aged, 80 And Over Capitation Fee Cost Allocation Cost Control Health Services Needs And Demand Medicaid Medicare Organizational Objectives United States/ <Major> *Activities Of Daily Living *Geriatrics --Organization And Administration --Og *Health Promotion *Managed Care Programs --Standards --St.

Author: Leveille SG, Wagner EH, Davis C, Grothaus L, Wallace J, LoGerfo M, Kent D
Title: Preventing disability and managing chronic illness in frail older adults: a randomized trial of a community-based partnership with primary care
Journal: Journal of the American Geriatrics Society
Year: 1998
Volume: 46
Number: 10
Pages: 1191-1198
Abstract: BACKGROUND: Effective new strategies that complement primary care are needed to reduce disability risks and improve self-management of chronic illness in frail older people living in the community. OBJECTIVE: To evaluate the impact of a 1-year, senior center-based chronic illness self-management and disability prevention program on health, functioning, and healthcare utilization in frail older adults. DESIGN: A randomized controlled trial. SETTING: A large senior center located in a northeast Seattle suburb. The trial was conducted in collaboration with primary care providers of two large managed care organizations. PARTICIPANTS: A total of 201 chronically ill older adults seniors aged 70 and older recruited through medical practices. INTERVENTION: A targeted, multi-component disability prevention and disease self-management program led by a geriatric nurse practitioner (GNP). MEASUREMENTS: Self-reported Physical function, physical performance tests, health care utilization, and health behaviors. RESULTS: Each of 101 intervention participants met with the GNP from 1 to 8 times (median = 3) during the study year. The intervention group showed less

decline in function, as measured by disability days and lower scores on the Health Assessment Questionnaire. Other measures of function, including the SF-36 and a battery of physical performance tests, did not change with the intervention. The number of hospitalized participants increased by 69% among the controls and decreased by 38% in the intervention group (P = .083). The total number of inpatient hospital days during the study year was significantly less in the intervention group compared with controls (total days = 33 vs 116, P = .049). The intervention led to significantly higher levels of physical activity and senior center participation and significant reductions in the use of psychoactive medications. CONCLUSIONS: This project provides evidence that a community-based collaboration with primary care providers can improve function and reduce inpatient utilization in chronically ill older adults. Linking organized medical care with complementary community-based interventions may be a promising direction for research and practice.

Keywords: Aged Community-Institutional Relations Disability Evaluation Exercise Geriatric Assessment Health Behavior Health Maintenance Organizations Health Services for the Aged --Utilization --UT Outcome and Process Assessment (Health Care) Primary Health Care --Utilization --UT Risk Factors Social Behavior Washington/ *Activities of Daily Living *Chronic Disease --Therapy --TH *Community Health Services --Organization and Administration --OG *Frail Elderly *Health Services for the Aged --Organization and Administration --OG *Primary Health Care --Organization and Administration --OG *Self Care.

Author: Lurie N, Christianson J, Finch M, Moscovice I
Title: The effects of capitation on health and functional status of the Medicaid elderly - a randomized trial
Journal: Annals of Internal Medicine
Year: 1994
Volume: 120
Number: 6
Pages: 506-511
Abstract: Purpose: To determine the effect on health and functional status outcomes of enrollment of noninstitutionalized elderly Medicaid recipients in prepaid plans compared with traditional fee-for-service Medicaid. Design: A randomized controlled trial. Beneficiaries were randomly assigned to prepaid care in one of seven capitated health plans compared with fee-for-service care. Only the Medicaid portion of their care was capitated. Patients were followed for 1 year. Setting: The Medicaid Demonstration Project in Hennepin County, Minnesota, which includes Minneapolis. Patients: 800 Medicaid beneficiaries who were 65 years or older at the beginning of the evaluation. Beneficiaries were interviewed at baseline (time 1) and 1 year later (time 2). Ninety-six percent of beneficiaries were available for follow-up interviews at time 2. Main Outcome Measures: General health status, physical functioning, mental health status, activities of daily living, instrumental activities of daily living, corrected visual acuity, and blood pressure and glycosylated hemoglobin measurements for hypertensive and diabetic persons, respectively. Results: There were no differences between prepaid and fee-for-service groups in the number of deaths (20 compared with 24, P > 0.2), the proportion in fair or poor health (56.5% compared with 59.7%, P > 0.2), physical functioning, activities of daily living, visual acuity, or blood pressure or diabetic control. Patients in the prepaid group reported a trend toward better general health rating scores (10.2 compared with 9.8, P = 0.06) and well-being scores (10.0 compared with 9.7, P = 0.07) than patients in the fee-for-service group. The difference in the likelihood of a patient in the prepaid group having a physician visit relative to the fee-for-service group was -16.5% (adjusted odds ratio, 0.46; 95% CI, 0.29 to 0.74) and for an inpatient visit was -11.2% (adjusted odds ratio, 0.55; CI, 0.32 to 0.94). Conclusions: There was no evidence of harmful effects of enrolling elderly Medicaid patients in prepaid plans, at least in the short run. Whether these findings also apply to settings in which health maintenance organizations are formed exclusively for Medicaid patients should be studied further.

Author: Manton KG, Newcomer R, Vertrees JC, Lowrimore GR, Harrington C
Title: A method for adjusting capitation payments to managed care plans using multivariate patterns of health and functioning: the experience of social/health maintenance organizations

Journal: Medical Care
Year: 1994 Mar
Volume: 32
Number: 3
Pages: 277-297
Abstract: A multivariate procedure for identifying case-mix dimensions from discrete health variables is presented. Since the dimensions are generated only from health use data and not service use data, they can be used for adjust capitation rates to provide incentives to treat persons not currently well integrated in standard health care system (e.g., very ill persons, the uninsured) or to promote specific health outcomes. The procedure is illustrated with data from Social/Health Maintenance Organizations (S/HMO) since they provide both acute and long-term care (LTC) services. Thus, case-mix measures to adjust S/HMO reimbursements have to represent both medical conditions and the degree, and type, of functional impairment. From 31 health and functioning items, six case-mix dimensions, and scores for individuals on each, were calculated. The multivariate distribution of scores in S/HMO enrollees, and in Medicare eligible, comparison samples, were examined in each site to see how their health differed. S/HMO enrollees were healthier and less frail than persons remaining in the Medicare FFS system. Such differences are important in adjusting capitation rates to provide incentive to accept clients with complex health problems.
Keywords: <Minor> Activities Of Daily Living Aged Aged, 80 And Over Costs And Cost Analysis Diagnosis-Related Groups Medicare Multivariate Analysis United States/ <Major> *Capitation Fee --Organization And Administration --Og *Comprehensive Health Care --Economics --Ec *Health Maintenance Organizations --Economics --Ec *Rate Setting And Review --Methods --Mt.

Author: Mechanic D
Title: The changing elderly population and future health care needs
Journal: Journal Of Urban Health-Bulletin Of The New York Academy Of Medicine
Year: 1999
Volume: 76
Number: 1
Pages: 24-38
Abstract: The impending growth of the elderly population requires both fiscal and substantive changes in Medicare and Medicaid that are responsive to cost issues and to changing patterns of need. More emphasis is required on chronic disease management, on meaningful integration between acute and long-term care services, and on improved coordination between Medicare and Medicaid initiatives. This paper reviews various trends, including the growth in managed-care approaches, experience with social health maintenance organizations and Program of All-Inclusive Care for the Elderly demonstrations, and the need for a coherent long-term care policy. Such policies, however, transcend health care and require a broad range of community initiatives.

Author: Meng YY, Jatulis DE, McDonald JP, Legorreta AP
Title: Satisfaction with access to and quality of health care among Medicare enrollees in a health maintenance organization
Journal: Western Journal of Medicine
Year: 1997 Apr
Volume: 166
Number: 4
Pages: :242-247
Abstract: This study was designed to determine the levels and predictors of Medicare enrollees' satisfaction with access to medical care and quality of health care in a health maintenance organization. Data collected by an instrument adapted from the Group Health Association of America's Consumer Satisfaction Survey were analyzed after being linked with administrative data. In general, Medicare enrollees reported high satisfaction with both access to and quality of health care. Most members (96%) rated skill, experience, and training of physicians and the

friendliness and courtesy of the staff favorably. A lower percentage of members (77%) rated favorably the ability to contact a physician after hours. Levels of satisfaction were essentially not explained by patient characteristics such as age, sex, geographic region, medications, or utilization. Stepwise regression identified the ease of arranging appointments as the strongest predictor of satisfaction, with access to care and outcomes of medical care as the strongest predictor of overall satisfaction with quality of health care. These findings indicate that items that members rated least favorably, such as ability to contact a physician after hours, added little to the prediction of satisfaction with access to and quality of health care.

Keywords: Aged Aged, 80 and over Data Collection Health Services Accessibility --Trends --TD Middle Age Multivariate Analysis Questionnaires Regression Analysis Sampling Studies United States/ *Health Maintenance Organizations --Standards --ST *Health Services Accessibility --Standards --ST *Medicare --Standards --ST *Patient Satisfaction --Statistical and Numerical Data --SN *Quality of Health Care.

Author: Miller LL, Hornbrook MC, Archbold PG, Stewart BJ
Title: Development of use and cost measures in a nursing intervention for family caregivers and frail elderly patients
Journal: Res Nurs Health
Year: 1996 Aug
Volume: 19
Number: 4
Pages: 273-285
Abstract: The purpose of this pilot study was to refine and evaluate methods of measuring costs of an innovative home-health nursing intervention designed to support frail, older persons and their family caregivers. We evaluated a multifaceted strategy to collect a detailed utilization profile from 22 caregiver/care receiver dyads for hospital, ambulatory, home health, nursing home, and community services. The strategy was feasible for most participants, maximized accuracy of cost data, and minimized research burden on study participants. Lower overall costs were found in the intervention group, but the difference was not significant. Approaches to the measurement of costs in this study can serve as models for evaluating other innovations in nursing, home care, and long-term care.
Keywords: Aged Aged, 80 and over Health Maintenance Organizations --Utilization --UT Health Services Needs and Demand Health Services Research Hospitalization Pilot Projects Social Support/ *Caregivers *Family *Frail Elderly *Health Care Costs *Health Maintenance Organizations --Economics --EC *Home Care Services --Economics --EC *Nursing Services --Economics --EC.

Author: Mollica RL
Title: Managed care and assisted living: Trends and future prospects
Journal: Journal of Health and Human Services Administration
Year: 1998
Volume: 20
Number: 3
Pages: 264-290
Abstract: With its emergence as a new, residential long-term care option, more than half of the states have established policy on assisted living. In 1996, over 30 states had created a state licensure category or passed legislation authorizing development of regulations. Known primarily as a resource for wealthy elders needing assistance with activities of daily living and health care needs, assisted living is increasingly being covered as a service under state Medicaid programs. Assisted living is widely seen as a resource for managed care organizations enrolling Medicare beneficiaries. Flexible capitation payments and incentives to substitute services create opportunities for assisted living facilities and HMOs to form partnerships. Enrollment of beneficiaries in Medicare HMOs has reached 4.5 million and is growing over 30% a year. In addition, state Medicaid agencies are developing programs to enroll elders, most of whom are also Medicare beneficiaries, in managed care programs that include long-term care. The move toward managed care and the increasing interest in integrating acute and long-term care for dual eligibles signals a growing role for assisted living facilities as a major resource for

elders who need a supportive and service-rich residential living environment.
Keywords: <Major Medical Term> Geriatric Care Managed Care/ <Minor Medical Term> Medicare Long Term Care Health Maintenance Organization Nursing Home Reimbursement Human Aged Review.

Author: Morgan RO, Virnig BA, DeVito CA, Persil, NA
Title: The Medicare-HMO revolving door--the healthy go in and the sick go out
Journal: New England Journal of Medicine
Year: 1997 Jul 17
Volume: 337
Number: 3
Pages: 169-175
Abstract: BACKGROUND: Enrollment in Medicare health maintenance organizations (HMOs) is encouraged because of the expectation that HMOs can help slow the growth of Medicare costs. However, Medicare HMOs, which are paid 95 percent of average yearly fee-for-service Medicare expenditures, are increasingly believed to benefit from the selective enrollment of healthier Medicare recipients. Furthermore, whether sicker patients are more likely to disenroll from Medicare HMOs, thus raising average fee-for-service costs, is not clear. METHODS: We used Medicare enrollment and inpatient billing records for southern Florida from 1990 through 1993 to examine differences in the use of inpatient medical services by 375,406 beneficiaries in the Medicare fee-for-service system, 48,380 HMO enrollees before enrollment, and 23,870 HMO enrollees after disenrollment. We also determined whether these differences were related to demographic characteristics and whether the pattern of use after disenrollment persisted over time. RESULTS: The rate of use of inpatient services in the HMO-enrollment group during the year before enrollment was 66 percent of the rate in the fee-for-service group, whereas the rate in the HMO-disenrollment group after disenrollment was 180 percent of that in the fee-for-service group. Beneficiaries who disenrolled from HMOs re-enrolled at about the time that their level of use dropped to that in the fee-for-service group. CONCLUSIONS: These data show marked selection biases with respect to HMO enrollment and disenrollment. These biases undermine the effectiveness of the Medicare managed-care system and highlight the need for longitudinal and population-based studies.
Keywords: Health Maintenance Organizations--utilization; Health Services--utilization; Hospitalization--statistics & numerical data; Medicare--utilization; Other Subjects (MeSH): Fee-for-Service Plans--statistics & numerical data; Fee-for-Service Plans--utilization; Health Maintenance Organizations--economics; Health Maintenance Organizations--statistics & numerical data; Health Services Research; Medicare--economics; Medicare--statistics & numerical data; Florida; United States; Limits: Aged; Aged, 80 and over; Comparative Study; Human

Author: Mouton CP
Title: Special health considerations in African-American elders
Journal: American Family Physician
Year: 1997
Volume: 55
Number: 4
Pages: 1243-1253
Abstract: Older African Americans constitute an expanding part of the elderly population in the United States. Although socioeconomic factors affect longevity and functional status more than race, African-American elders, as a whole, show poorer health status, as well as greater levels of financial strain and care-giver burden. Incidence rates of hypertension, heart disease, stroke, end-stage renal disease, dementia and prostate cancer are higher among African Americans than among the white population. The incidence of depression, however, is lower. Cancer survival rates are also lower, in part because of lower rates of cancer screening in this group. Physicians should carefully choose instruments to assess cognitive and physical status in African-American elders. The Activities of Daily Living scale and the Short Portable Mental Status Questionnaire are two tools that have been specially tasted and shown to be reliable and valid in this population group. The Geriatric Depression Scale is a useful diagnostic tool

that is quick to use in a busy office practice. Taking the time during an initial visit to understand the patient's values and perceptions of health and illness builds a sense of comfort and trust that will set a positive tone for the entire doctor-patient relationship and may empower the patient to take positive steps to improve health habits.

Keywords: <Major Medical Term> Gerontology Health Care Delivery/ <Minor Medical Term> Aged Daily Life Activity Depression Doctor Patient Relation Ethnic Group Human Managed Care Patient Care Race Difference Rating Scale Review Socioeconomics Survival Rate.

Author: Murphy JF, Hepworth JT
Title: Age and gender differences in health services utilization
Journal: Res Nurs Health
Year: 1996 Aug
Volume: 19
Number: 4
Pages: 323-329
Abstract: The purpose of this study was to examine the health service utilization patterns of elderly male and female enrollees of a large urban staff model Health Maintenance Organization (HMO). This HMO offered a wide spectrum of managed care services for its beneficiaries. A cross-sectional design was employed. The 759 randomly sampled elderly enrollees ranged in age from 66 to 99, with an average of 77.15 years. Approximately 60% were male and 40% were female; thus, the sample was not representative of the national older adult population. Three utilization patterns indicated that there were (a) nonsignificant relationships between age or gender and urgent care visits, prescribed pharmaceuticals, and out-of-pocket costs for pharmaceuticals; (b) linear relationships between age and gender and visits to HMO primary care providers (-), home-health care visits (+), emergency care visits (+), hospitalizations (+), and MD visits during hospitalizations (+); and (c) age was curvilinearly related to use of both HMO specialists and non-HMO specialists. These findings suggest that use of acute care services, including hospitalizations, inpatient physician visits, and emergency services increase with age but the use of primary care providers decreases with age. Gender was not a significant modifier of the relationship between age and utilization.
Keywords: Age Factors Aged Aged, 80 and over Cross-Sectional Studies Emergency Medical Services --Utilization --UT Health Services Research Hospitals --Utilization --UT Linear Models Questionnaires Sex Factors Specialties, Medical Urban Health/ *Health Maintenance Organizations --Utilization --UT.

Author: Nelson L, Brown R, Gold M, Ciemnecki A, Docteur E
Title: Access to care in Medicare HMOs, 1996
Journal: Health Affairs
Year: 1997
Volume: 16
Number: 2
Pages: 148-156
Abstract: Assessed access to care for Medicare health maintenance organization (HMO) enrollees. A telephone survey was conducted in 1996 of a stratified random sample of 3,080 Medicare beneficiaries who were enrolled in a Medicare managed care risk plan for at least 2 months during the year ending February 1996; 63 percent were continuous enrollees, 29 percent were new enrollees, 4.7 percent were switchers, and 2.8 percent were disenrollees to fee-for-service (FFS) Medicare. The great majority of Medicare managed care enrollees did not report access problems, were relatively satisfied with the care they received, and would recommend their plan. Beneficiaries were more likely to report problems with access to home health care; of the 8 percent who received home health care, 17 percent felt that they needed more care than the plan provided. Vulnerable subgroups--nonelderly disabled, oldest-old, functionally impaired, and persons in fair or poor health or with worsening health--were much more likely than the general population to report access problems, particularly for home health care. Disenrollees were more likely to report access problems and less likely to be satisfied with their plans; reasons for returning to FFS included moving out of the service area (25 percent), dissatisfaction with plan physicians (26 percent), financial issues (18 percent), and access

problems (10 percent).
Keywords: Medicare Beneficiaries United States Older Adults Medicare Managed Care Health Maintenance Organizations Surveys Health Services Service Accessibility Home Health Care Satisfaction Frail Elderly Disabled Old Old.

Author: Netting FE, Warrick LH, Christianson JB, Williams FG
Title: Determinants of client termination in hospital-based case management programs
Journal: Journal of Case Management
Year: 1994 Summer
Volume: 3
Number: 2
Pages: 74-80
Abstract: Increasing attention is being focused on hospital-based programs that address the needs of the frail elderly. This article reports results from a demonstration of hospital-based case management (HBCC). Baseline, 3-, 6-, and 12-month assessment data are analyzed to determine why clients terminated from HBCC programs. Subsamples of community- and hospital-originated clients are examined to determine what factors predict case management termination. About half of both hospital- and community-originated clients left case management within 12 months because of death, nursing home placement, referral to another case management agency, relocation out of the service area, or discharge as self-sufficient. Hospital-originated clients were more likely to die within the first 6 months after entering case management than were community-originated clients. Cognitive and functional abilities were important predictors of termination status.
Keywords: Activities of Daily Living Aged/ *Frail Elderly *Health Services Research *Managed Care Programs --Utilization --UT *Outpatient Clinics, Hospital --Utilization --UT *Patient Dropouts.

Author: Pacala JT, Boult C, Reed RL, Aliberti E
Title: Predictive validity of the PRA instrument among older recipients of managed care
Journal: Journal of the American Geriatrics Society
Year: 1997 May
Volume: 45
Number: 6
Pages: 614-617
Abstract: OBJECTIVE: To determine the validity of the PRA instrument in predicting the use of health-related services by older enrollees in a managed care plan. DESIGN: Cohort study. At baseline, a survey was administered by mail. Responses were entered into the PRA formula to estimate each person's probability of using health-related services heavily in the future. The subjects' use of services during the following year was monitored through claims submitted to their managed care organization. SETTING: Urban and suburban areas of Southern California. PARTICIPANTS: Persons aged 65 years and older enrolled in a Medicare risk health plan (n = 6802). MEASUREMENTS: Baseline data included demographic, health-related, social, functional, and previous-use-of-service characteristics. Follow-up data included the use of and claims for payment for inpatient hospital care, emergency room services, nursing home services, home care, ambulance services, outpatient surgery, and durable medical equipment. RESULTS: High-risk subjects (highest quartile of PRA values) incurred hospital admissions and claims that were 2.5 and 2.7 times greater than those of low-risk subjects (lower three quartiles). CONCLUSIONS: The PRA formula is recommended for screening older adults enrolled in managed care organizations (as well as for screening those in the fee-for-service environment). It identifies older people who may benefit from interventions designed to avert health crises and the need for expensive care.
Keywords: Aged Aged, 80 and over California Medicare --Utilization --UT Predictive Value of Tests Questionnaires Reproducibility of Results Risk Factors United States Utilization Review --Methods --MT/ *Health Services for the Aged --Utilization --UT *Health Services Research --Methods --MT *Managed Care Programs --Utilization --UT *Patient Readmission.

Author: Pearlman DN, Branch LG, Ozminkowski RJ, Experton B, Li Z

Title: Transitions in health care use and expenditures among frail older adults by payor/provider type
Journal: Journal of the American Geriatrics Society
Year: 1997 May
Volume: 45
Number: 5
Pages: 550-557
Abstract: OBJECTIVES: To assess whether transitions in health care expenditures differed over time by payor/provider type: Medicare fee-for-service (FFS), Medicaid-Medicare, and Medicare HMO. DESIGN: Longitudinal study. SETTING: A large, nonprofit healthcare system in San Diego, California. PARTICIPANTS: A total of 450 frail older people who responded to the baseline and follow-up surveys and who survived the 18-month study period. MEASUREMENTS: Measures included three total expenditure categories for each 6-month period: low users (< $4000); medium users ($4000-$19,999); or high users ($20,000+). Seven conceptually meaningful expenditure trajectories over time were identified: (1) consistently low expenditures, (2) consistently medium expenditures, (3) consistently high expenditures, (4) decreasing expenditures, (5) increasing expenditures, (6) U-shaped expenditures, and (7) inverted U-shaped expenditures. MAIN RESULTS: Logistic regression analyses showed that HMO enrollees were about twice as likely as Medicaid-Medicare beneficiaries to have consistently low expenditures, but no differences were found between the FFS and HMO groups on this trajectory. Other expenditure patterns showed no significant differences by payor/provider group. Significant interactions among payor/provider type, low/medium/ high expenditure status, and time were observed for inpatient hospital care, skilled nursing/rehabilitation care, and home health care. CONCLUSION: This study illustrates the complexity of frail older people with respect to their health care expenditures and service use. Expanded efforts to control health care expenditures for frail older people should focus first on those who are dually-enrolled. In addition, because mean medical expenditures for high users enrolled in different payor/ provider groups were surprisingly similar, the data suggest that containing expenditures for individuals in the highest usage group ($20,000+) presents challenges for physicians practicing in an era of healthcare reform, regardless of payor/ provider setting.
Keywords: Aged California Cost Control Fee-for-Service Plans --Economics --EC Health Maintenance Organizations --Economics --EC Health Services for the Aged --Utilization --UT Health Status Logistic Models Longitudinal Studies Medicare --Economics --EC United States/ *Fee-for-Service Plans --Utilization --UT *Frail Elderly --Statistical and Numerical Data --SN *Health Expenditures --Statistical and Numerical Data --SN *Health Maintenance Organizations --Utilization --UT *Health Services for the Aged --Economics --EC *Medicare --Utilization --UT.

Author: Phillips-Harris C
Title: Case management: high-intensity care for frail patients with complex needs.
Journal: Geriatrics
Year: 1998 Feb
Volume: 53
Number: 2
Pages: 62-64, 67-68, quiz 69
Abstract: Case management has evolved beyond the functions of discharge planning and utilization review to a role of managing the delivery of services for populations across settings. The two forces driving this change are the growth of Medicare managed care and the increasing numbers of frail older patients with chronic disease. Necessary components of case management include a system of risk identification; an ability to link information, physicians and other providers; an interdisciplinary team approach; and the ability to follow identified older patients over time. In high intensity/low volume models, each case manager works directly with a small number of patients for a given episode of care or over time.
Keywords: Aged Patient Discharge Risk Assessment/ *Case Management *Chronic Disease --Therapy --TH *Frail Elderly *Health Maintenance Organizations *Health Services Needs and Demand *Intensive Care --Utilization --UT.

Author: Polivka L, Dunlop BD, Rothman MB
Book Title: Long-term care for the frail elderly in Florida: expanding choices, containing costs. Long-term

care policy series
Year: 1996
Abstract: Examines trends in population aging and long term care in Florida, in an effort to identify the kinds of changes in long term care that would best position the state to address the dilemma of growing demand and declining resources. Florida already has a greater proportion of adults aged 65 and older than any other state (18.5 percent), a proportion that will grow to 25 percent early in the 21st century. The role of informal long term care and the use of public funds to strengthen informal care is reviewed, along with the cost-effectiveness of community-based long term care. State-level initiatives in the integration of acute and long term care in Arizona, Minnesota, Wisconsin, and Florida are reviewed. Twenty-one specific recommendations are made in regard to financial eligibility for long term care, home- and community-based alternatives, nursing home certificate of need freezes, consumer control, extended congregate care, regulatory reform, adult foster care, ethnic older adults, client assessment and referral, managed care, health maintenance organizations (HMOs), social HMOs, and Medicaid prepaid plans. A bibliography is included.
Keywords: United States Older Adults Long Term Care Florida Frail Elderly 65+ Public Policy Demographic Characteristics Population Aging Home Care Community Services Nursing Homes Congregate Housing Health Maintenance Organizations Managed Care Informal Support Systems.

Author: Reuben DB, Borok GM, Wolde-Tsadik G, Ershoff DH, Fishman LK, Ambrosini VL, Liu Y, Rubenstein LZ, Beck JC
Title: A randomized trial of comprehensive geriatric assessment in the care of hospitalized patients
Journal: New England Journal of Medicine
Year: 1995 May 18
Volume: 332
Number: 20
Pages: 1345-1350
Abstract: BACKGROUND. Although many studies describe benefits from the comprehensive assessment of elderly patients by an interdisciplinary team (comprehensive geriatric assessment), the most supportive evidence for the process has come from programs that rely on specialized inpatient units and long hospital stays. We examined whether an inpatient geriatric consultation service might also be beneficial in a trial involving four medical centers of a group-practice health maintenance organization (HMO). METHODS. We conducted a randomized clinical trial with 2353 hospitalized patients 65 years of age or older in whom at least 1 of 13 screening criteria were present: stroke, immobility, impairment in any basic activity of daily living, malnutrition, incontinence, confusion or dementia, prolonged bed rest, recent falls, depression, social or family problems, an unplanned readmission to the hospital within three months of a previous hospital stay, a new fracture, and age of 80 years or older. Of the 1337 patients assigned to the experimental group, 1261 (94 percent) received a comprehensive geriatric assessment in the form of a consultation, with limited follow-up; the 1016 patients assigned to the control group received usual care. The functional and health status of the patients was measured at base line and 3 and 12 months later; survival was assessed at 12 months. Subgroups of patients who might be presumed to benefit from comprehensive assessment were also studied. RESULTS. The survival rate at 12 months was 74 percent in the experimental group and 75 percent in the control group. At base line, 3 months, and 12 months the scores of the two groups on measures of functional and health status were similar. The analysis of 16 subgroups did not identify any with either clearly improved functional status or improved survival. CONCLUSIONS. In this HMO, comprehensive geriatric assessment by a consultation team, with limited follow-up, did not improve the health or survival of hospitalized patients selected on the basis of screening criteria.

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No

Keywords: <Minor> Activities Of Daily Living Aged Aged, 80 And Over California Follow-Up Studies Health Status Treatment Outcome/ <Major> *Critical Care *Geriatric Assessment *Health Maintenance Organizations *Hospitalization *Patient Care Team *Referral And Consultation --Organization And Administration --Og.

Author: Reuben DB, Schnelle JF, Buchanan JL, Kington RS, Zellman GL, Farley DO, Hirsch SH,

Ouslander JG
Title: Primary care of long-stay nursing home residents: approaches of three health maintenance organizations
Journal: Journal of the American Geriatrics Society
Year: 1999 Feb
Volume: 47
Number: 2
Pages: 131-138
Abstract: OBJECTIVE: To describe the innovative programs of three health maintenance organizations (HMOs) for providing primary care for long-stay nursing home (NH) residents and to compare this care with that of fee-for-service (FFS) residents at the same NHs. DESIGN: Cross-sectional interviews and case-studies, including retrospective chart reviews for 1 year. SETTING: The programs were based in 20 community-based nursing homes in three regions (East, West, Far West). PARTICIPANTS: Administrative and professional staff of HMOs in three regions and 20 NHs; 215 HMO and 187 FFS residents at these homes were studied. MAIN OUTCOME MEASURES: Emergency department (ED) and hospital utilization. RESULTS: All HMO programs utilized nurse practitioner/physician's assistants (NP/PA), but the structural configuration of physicians' (MD) practices differed substantially. At nursing homes within each region, all three HMO programs provided more total (MD plus NP/PA) visits per month than did FFS care (2.0 vs 1.1, 1.3 vs .6, and 1.4 vs .8 visits per month; all $P < .05$). The HMO that provided the most total visits had a significantly lower percentage of residents transferred to EDs (6% vs 16%, $P = .048$), fewer ED visits per resident (0.1 vs .4 per year, $P = .027$), and fewer hospitalizations per resident (0.1 vs .5 per year, $P = .038$) than FFS residents; these differences remained significant in multivariate analyses. However, the other two programs did not achieve the same benefits on healthcare utilization. CONCLUSIONS: HMO programs for NH residents provide more primary care and have the potential to reduce ED and hospital use compared with FFS care. However, not all programs have been associated with decreased ED and hospital utilization, perhaps because of differences in structure or implementation problems.
Keywords: Aged Aged, 80 and over Geriatric Assessment --Statistical and Numerical Data --SN Homes for the Aged --Statistical and Numerical Data --SN Long-Term Care --Statistical and Numerical Data --SN Nursing Homes --Statistical and Numerical Data --SN Patient Care Team --Utilization --UT Patient Transfer --Statistical and Numerical Data --SN Retrospective Studies United States Utilization Review/ *Health Maintenance Organizations --Utilization --UT *Health Services for the Aged --Utilization --UT *Primary Health Care --Utilization --UT.

Author: Ried LD, Johnson RE, Brody KK, Vogt TM
Title: Medical care utilization among older HMO members with and without hypertension
Journal: Journal of the American Geriatrics Society
Year: 1995 Mar
Volume: 43
Number: 3
Pages: 222-229
Abstract: OBJECTIVES: To compare hospital utilization, health status, and sociodemographic characteristics of older persons with and without hypertension and to examine the nature of the association of hypertension with medical care utilization. DESIGN: A retrospective, nonexperimental study. SETTING: A large health maintenance organization (HMO), located in the Portland, Oregon and Vancouver, Washington areas, that provides comprehensive, prepaid benefits to its members. PARTICIPANTS: Approximately 4200 older (> or = 65 years) members enrolled in the Social HMO Demonstration Project. MEASUREMENTS: The dependent variables were (1) whether a member was hospitalized (0 = no; 1 = yes) and (2) the number of hospitalizations during the 12-month period before the return of the Health Status Form, a mail questionnaire. The predictor variables were high blood pressure and other medical conditions, health status, and sociodemographic characteristics. Patients classified as hypertensive were those who self-reported high blood pressure and who received two or more dispensings for antihypertensive medications. RESULTS: Older hypertensives were more likely than older nonhypertensives to have been hospitalized (odds ratio (OR) = 1.14 (95% CI 1.01, 1.27)), self-report their health as only good or fair ($P < .001$), self-report IADL functional

limitations (P < .001), and to be younger than nonhypertensives (P < .001). Utilization differences were similar after controlling for patients' age and gender. Factors independently associated with an increased likelihood of hospitalization were male gender (OR = 1.14 (1.00,1.31)), age (OR = 1.35 (1.00,1.81)), poor (OR = 1.32 (1.02,1.72)) or fair (OR = 1.20 (1.01,1.44)) self-rated health status, functional limitations in activities of daily living (OR = 1.74 (1.48,2.03), and self-reported heart trouble (OR = 1.50 (1.34,1.68)), stroke (OR = 1.37 (1.15,1.64)), or cancer (OR = 2.89 (1.72,4.84)). Factors independently associated with a decreased likelihood of hospitalization were excellent self-reported health (OR = 0.65 (0.47,0.90)), no physical impairments (OR = 0.59 (0.48,0.72)), and no circulation problems (OR = 0.85 (0.74,0.98)). CONCLUSIONS: Older hypertensive patients had poorer self-reported health, more functional limitations, used more hospital services, and were not as old as nonhypertensive older patients. To the extent that general health is improved by treatment of hypertension, appropriate treatment of high blood pressure may not only improve health, it may also reduce medical care utilization. Our findings offer further support for hypertension prevention, detection, and treatment programs designed to reduce or minimize hypertension's later medical complications and to reduce future utilization.

Keywords: Activities of Daily Living Age Factors Aged Aged, 80 and over Health Status Hypertension --Complications --CO Hypertension --Therapy --TH Northwestern United States Retrospective Studies Socioeconomic Factors Utilization Review/ *Emergency Service, Hospital --Utilization --UT *Health Maintenance Organizations --Utilization --UT *Hypertension *Patient Admission --Statistical and Numerical Data --SN.

Author: Romeis JC, Coe RM, Morley JE
Book Title: Applying health services research to long-term care [Book].
Location: New York, NY
Volume: Springer Pub. Co
Year: 1996
Abstract: Examines factors influencing the development of integrated, comprehensive, long term care services. Examines special economic, cultural, and ethical issues arising from the need for long term care services, including insuring older adults against potential catastrophic costs of long term care, the growth of ethnic minority older adult populations and the likely increased prevalence of disability and use of community-based services in these populations, assessing quality of life in chronically ill and functionally limited older adults, and issues around resource allocation. Describes health services evaluations of basic issues in long term care in settings from the patient's home to the nursing home. Reviews factors associated with cost-effectiveness and satisfaction with home care. Reports on a multisite study of adult day care for veterans that showed higher costs than customary care but no differences in health status outcomes. Presents a review of studies providing long term care in health maintenance organizations. Discusses the effects of the 1987 Omnibus Budget Reconciliation Act and the 1982 Tax Equity and Fiscal Responsibility Act on outcomes in nursing homes. Illustrates some applications of health services research to the issue of integration of long term care services, describing controlled trials of providing preventive care in the home setting, preliminary results concerning family caregivers of victims of Alzheimer's disease, models of community-based formal services to help informal caregivers, and preliminary results of the PACE project, a national demonstration project that integrates the organization, delivery, and payment of comprehensive acute and long term care services for the very frail elderly. Includes chapter references.
Keywords: United States Older Adults Long Term Care Gerontological Research Health Services Public Policy Health Service Costs Resource Allocation Ethnicity Quality Of Life Long Term Care Administration Home Care Institutional Care Managed Care Service Delivery.

Author: Rousseau P
Title: Palliative care in managed Medicare: Reasons for hope - And for concern
Journal: Geriatrics
Year: 1998
Volume: 53
Number: 11

Pages: 59-65

Abstract: Growing numbers of persons age 65 and older are enrolling in managed care plans to obtain benefits that are not avail- able or more expensive in fee-for-service Medicare. The relatively greater prevalence of chronic disease and mortality in this population presents new challenges to managed care to provide cost-effective, yet laudable, palliative care. Certain aspects of managed care have the potential to improve the dying process. These include integrated care, reduced financial incentives for nonessential tests and procedures, portable and computerized medical records, and appropriate accountability for quality. On the other hand, possible barriers to attaining this goal in managed care include divided loyalties, conflicts of interest, the risk of devaluation of dying persons, and cost constraints.

Keywords: <Major Medical Term> Palliative Therapy Medicare Managed Care/ <Minor Medical Term> Aging Elderly Care Cost Effectiveness Analysis Prevalence Patient Care Financial Management Medical Record Cost Control World Health Organization Health Care Quality Human Aged Review.

Author: Scharlach AE, Midanik LT, Runkle MC, Soghikian K

Title: Health practices of adults with elder care responsibilities

Journal: Preventive Medicine

Year: 1997 Mar-Apr

Volume: 26

Number: 2

Pages: 155-161

Abstract: BACKGROUND: This study examined health-risk behaviors and preventive health care activities among caregivers for older adults. METHODS: Survey questionnaires regarding health practices were completed by 272 caregivers and 917 noncaregivers selected through a stratified random sample of persons age 50 or older who were members of the Kaiser Foundation Health Plan in Northern California. RESULTS: Controlling for age, gender, race, education, marital status, and income level, caregivers were more likely than noncaregivers to eat breakfast daily, get flu shots, and receive pneumonia vaccines. Caregivers and noncaregivers did not differ significantly with regard to any of 10 other health practices or to the total number of positive health behaviors. Poorer health practices were associated with nonwhite racial identification, low income level, part-time employment, and health limitations. CONCLUSIONS: These findings suggest that, at least for caregivers who have access to the extensive health promotion resources of a large health maintenance organization, caregiving responsibilities may not always have the deleterious impact on health and health practices that had previously been assumed.

Keywords: Aged Aged, 80 and over California Confidence Intervals Cross-Sectional Studies Exercise Health Behavior --Ethnology --EH Health Maintenance Organizations --Statistical and Numerical Data --SN Health Status Logistic Models Middle Age Risk Sampling Studies Socioeconomic Factors/ *Caregivers --Psychology --PX *Health Behavior *Preventive Health Services --Utilization --UT *Risk-Taking.

Author: Schraeder C, Shelton P, Dworak D, Fraser C

Title: Alzheimer's disease: case management in a rural setting

Journal: Journal of Case Management

Year: 1993 Spring

Volume: 2

Number: 1

Pages: 26-31

Abstract: This article describes a case management model developed under the guidelines of the Medicare Alzheimer's Disease Demonstration. This delivery model currently provides services to over 400 Alzheimer's disease victims and their family caregivers who reside in predominantly rural communities in east central Illinois and western Indiana. Client and caregiver characteristics are provided as well as service utilization patterns. The model incorporates intervention strategies that facilitate communication and coordination of services, integrates formal and informal support systems, and allows for client advocacy and system development.

Keywords: Aged Aged, 80 and over Alzheimer Disease --Epidemiology --EP Illinois --Epidemiology --EP Indiana --Ep idemiology --EP Medicare Middle Age Models, Organizational United States/ *Alzheimer Disease --Rehabilitation --RH *Managed Care Programs --Organization and Administration --OG *Regional Medical Programs --Organization and Administration --OG *Rural Health.

Author: Swindle DN, Weyant JL, Mar PS
Title: Nurse case management: collaborative beyond the hospital walls
Journal: Journal of Case Management
Year: 1994 Summer
Volume: 3
Number: 2
Pages: 51-55
Abstract: In 1989, St. Joseph Medical Center initiated a community-based nursing case management program with two nurses providing care to high-risk, chronically ill, frail elderly patients. This program has expanded to five registered nurses actively following over 120 patients. Target populations now served have expanded to include: frail elderly, high-risk pregnant women, premature infants, AIDS patients, and those with chronic physical and mental illness. The nurse manages and coordinates the care for patients through all settings (community and hospital), brokering services, acting as a patient advocate, and giving traditional hands-on care as needed. Outcomes analysis has shown that, after nursing case management intervention, the patients demonstrated a 71% decrease in admissions to the medical center, a 21% decrease in length of stay, and a 64% decrease in Emergency Room usage. Nursing case management helps to prevent patients' health problems from becoming more complex. Consequently, managing their health effectively requires fewer, less costly resources while achieving improved patient outcomes.
Keywords: <Minor> Aged Aged, 80 And Over Outcome Assessment (Health Care)/ <Major> *Community Health Services --Organization And Administration --Og *Hospitals, Teaching *Managed Care Programs --Organization And Administration --Og *Patient Care Planning --Organization And Administration --Og.

Author: Unutzer J, Patrick DL, Simon G, Grembowski D, Walker E, Rutter C ,Katon W
Title: Depressive symptoms and the cost of health services in HMO patients aged 65 years and older: A 4-year prospective study
Journal: Journal of the American Medical Association
Year: 1997
Volume: 277
Number: 20
Pages: 1618-1623
Abstract: Objective.-To examine whether depressive symptoms in older adults contribute to increased cost of general medical services. Design.-A 4-year prospective cohort study. Setting.-Four primary care clinics of a large staff-model health maintenance organization (HMO) in Seattle, Wash. Patients.-A total of 5012 Medicare enrollees older than 65 years were invited to participate in the study; 2558 subjects (51%) were successfully enrolled. Non-participants were somewhat older and had a higher level of chronic medical illness. Main Outcome Measures.-Depressive symptoms as measured by the Center for Epidemiological Studies Depression scale, which was administered as part of a mail survey at baseline, at 2 years, and at 4 years; and total cost of medical services from the perspective of the HMO. Data were obtained from the cost accounting system of the HMO. Results.-In this cohort of older adults, depressive symptoms were common, persistent, and associated with a significant increase in the cost of general medical services. This increase was seen for every component of health care costs and was not accounted for by an increase in specialty mental health care. The increase in health care costs remained significant after adjusting for differences in age, sex, and chronic medical illness. Conclusions.-Depressive symptoms in older adults are associated with a significant increase in the cost of medical services, even after adjusting for the severity of chronic medical illness.
Keywords: <Major Medical Term> Depression --Epidemiology --Ep Health Care Cost Health Maintenance

Organization/ <Minor Medical Term> Age Aged Article Female Human Major Clinical Study Male Medicare Mental Health Care Priority Journal Prospective Study Symptomatology.

Author: Vaczek D
Title: SHMO-mentum: feds experiment with home-care benefit models
Journal: Contemporary Long Term Care
Year: 1994 May
Volume: 17
Number: 5
Pages: 44
Abstract: Analyzes the effects of four pilot social/health maintenance organizations (SHMOs) on health care costs. Since their creation in 1987, SHMOs in Portland, Oregon; Minneapolis, Minnesota; Brooklyn, New York; and Long Beach, California, have provided extensive home and community-based chronic care benefits to older adults. The SHMOs have held down chronic care costs, priced themselves competitively, and provided community benefits not available in Medicare's posthospital home care benefit. Members' premiums and Medicare payments of 100 percent of the adjusted-average, per capita costs (what Medicare would have spent providing services in the fee-for-service model) are prepaid and pooled. Frail elders pay monthly premiums ranging from zero to $155 and can qualify for services including home care, personal care, adult day care, homemaking, intervention services, and transportation. Final assessment indicates that the projects failed to reduce overall health costs and did not affect the quality of health care provided. The next generation of SHMOs will emphasize intensive geriatric management and disease prevention and will attempt to reduce hospitalizations by identifying at-risk populations in need of early intervention.
Keywords: United States Older Adults Social Health Maintenance Organizations Home Care Medicare Beneficiaries Managed Care Supportive Services Long Term Care Noninstitutionalized Elderly Frail Elderly Health Service Costs Models Program Description Program Evaluation.

Author: Virnig BA, Morgan RO, DeVito CA, Persily NA
Title: Medicare HMOs: Who joins and who leaves?
Journal: American Journal of Managed Care.
Year: 1998
Volume: 4
Number: 4
Pages: 511-518
Abstract: Medicare risk health maintenance organizations (HMOs) are an increasingly common alternative to fee-for-service Medicare. To date, there has been no examination of whether the HMO program is preferentially used by blacks or by persons living in lower-income areas or whether race and income are associated with reversing Medicare HMO selection. This question is important because evidence suggests that these beneficiaries receive poorer care under the fee-for-service-system than do whites and persons from wealthier areas. Medicare enrollment data from South Florida were examined for 1990 to 1993. Four overlapping groups of enrollees were examined: all age-eligible (age 65 and over) beneficiaries in 1990; all age-eligible beneficiaries in 1993; all age-eligible beneficiaries residing in South Florida during the period 1990 to 1993; and all beneficiaries who became age- eligible for Medicare benefits between 1990 and 1993. The associations between race or income and choice of Medicare option were examined by logistic regression. The association between the demographic characteristics and time staying with a particular option was examined with Kaplan-Meier methods and Cox Proportional Hazards modeling. Enrollment in Medicare risk HMOs steadily increased over the 4-year study period. In the overall Medicare population, the following statistically significant patterns of enrollment in Medicare HMOs were seen: enrollment of blacks was two times higher than that of non-blacks; enrollment decreased with age; and enrollment decreased as income level increased. For the newly eligible population, initial selection of Medicare option was strongly linked to income; race effects were weak but statistically significant. The data for disenrollment from an HMO revealed a similar demographic pattern. At 6 months, higher percentages of blacks, older beneficiaries (older than 85), and individuals from the lowest income area (less than $15,000 per year) had

disenrolled. A small percentage of beneficiaries moved between HMOs and FFS plans multiple times. These data on Medicare HMO populations in South Florida, an area with a high concentration of elderly individuals and with one of the highest HMO enrollment rates in the country, indicate that enrollment into and disenrollment from Medicare risk HMOs are associated with certain demographic characteristics, specifically, black race or residence in a low-income area

Keywords: <Major Medical Term> Medicare Health Maintenance Organization/ <Minor Medical Term> Lowest Income Group Negro Health Care Quality United States Statistical Analysis Income Demography Human Male Female Normal Human Aged Adult Article Priority Journal.

Author: von Sternberg T, Hepburn K, Cibuzar P, Convery L, Dokken B, Haefemeyer J, Rettke S, Ripley J, Vosenau V, Rothe P, Schurle D, Won-Savage R

Title: Post-hospital sub-acute care: an example of a managed care model

Journal: Journal of the American Geriatrics Society

Year: 1997 Jan

Volume: 45

Number: 1

Pages: 87-91

Abstract: OBJECTIVE: This article describes Transitional Care Centers (TCC), an innovative sub-acute care program developed by a large managed care organization (HealthPartners in Minnesota) in partnership with five area nursing homes. The purpose of the TCC is to promote continuity of care for frail older members covered under a TEFRA risk contract. DESIGN: This is a retrospective study of the experiences and outcomes of enrollees who received TCC compared with a like group of enrollees who received customary continuity care through contract services. SETTING: The TCCs are established contractually in five area nursing homes; these facilities keep at least 15 beds available to the health plan for round-the-clock, 7 days per week admissions for sub-acute care. Designated staff from these facilities and designated geriatric nurse practitioners and geriatricians from HealthPartners follow established targeting, admissions, assessment, care planning, and discharge planning procedures to provide team care for these patients at the facilities. PARTICIPANTS: The TCC program is targeted to patients requiring rehabilitation therapy (post-cardiovascular accident, post-fracture/replacement) who are deconditioned, or those with uncomplicated infections (urinary tract infection, pneumonia). A total of 1144 patients participated in the TCC program in the 1-year program under report, and 253 were surveyed in regard to their experience. One hundred HealthPartners physicians were surveyed about the program. RESULTS: Post-acute length of stay in the TCC was substantially lower than that in customary care settings in contract nursing homes (14.3 versus 20.5 days). Rehospitalization rates from these units were comparable to or better than those from other sub-acute units. Patient and primary care physician satisfaction with the units was high. The program provided economic benefit to both partners. The health plan's negotiated rate for the TCC units was 38% less than that paid in noncontractual facilities. CONCLUSION: The TCC partnership provides rehabilitative and geriatric evaluation services in settings more conducive to and less costly than such care usually, and yields improvements in care and utilization outcomes.

Keywords: Aged Aged, 80 and over Frail Elderly Length of Stay Managed Care Programs --Economics --EC Nursing Homes Outcome and Process Assessment (Health Care) Patient Satisfaction Rehabilitation Centers --Organization and Administration --OG Retrospective Studies/ *Geriatrics --Methods --MT *Managed Care Programs --Organization and Administration --OG *Patient-Centered Care --Organization and Administration --OG.

Author:	Argent J, Faulkner A, Jones A, O'Keeffe C
Title:	Communication skills in palliative care: development and modification of a rating scale
Journal:	Medical Education
Year:	1994 Nov
Volume:	28
Number:	6
Pages:	559-565
Abstract:	A complex rating scale has been used to evaluate the verbal communication skills of health professionals before and after training. The scale has been modified in order to decrease the useage time, to improve its accuracy and to develop a rating tool available to teachers. This paper describes the process of the modification and discusses the consequent validation of the scale.
Keywords:	Communication; Health Personnel; Palliative Care; Professional Competence; Other Subjects (MeSH): Professional-Patient Relations; Program Evaluation; Sensitivity and Specificity; Teaching.

Author:	Brolan DJ
Title:	Physician-patient-family communication over the course of chronic illness, with a focus on cancer care (communication) [DISSERTATION]
Location:	Syracuse University
Year:	1993
Pages:	305 PAGES
Abstract:	This research was centered around four principal questions: (1) How do physicians think about chronic illnesses, especially treatable but incurable cancer? (2) How do physicians, patients, and family members communicate among themselves about these illnesses? (3) How do physicians decide about what to do with what they know, especially with regard to disclosure of information, and treatment? (4) How do physicians experience the illnesses of their patients, and the situations of the families of those patients? Using qualitative methods, including participant-observation and interviewing, document review, and hospital quality assessment studies, thirty-nine patients and thirty-five physicians were studied in a mid-sized teaching hospital over the course of two years. A special focus of attention was the hospital's outpatient oncology department. The conclusions of the research propose that physicians are becoming even more distanced from patients and families, especially during the diagnostic phase of illness. This appears to be due to increased time pressures, constraints imposed by the hospital as an organization suffering its own economic pressures, a heavy reliance on high technology diagnostic cues, rather than the perceptual and interactive cues of earlier eras, and a learned model of interaction based on "affective neutrality" or "detached concern." Disclosure of illness is often managed poorly by physicians. Fragmented communication among physicians results in no plan for telling. Families are often told first, and if patients are told, the announcements may be "short and blunt," reminiscent of practices of thirty years ago. Medical oncologists appear to be exceptions. They actually join and bond with both patients and families, and promote a "winning stage" of illness even if a patient may be technically considered to be terminally ill. They pay careful attention to survival versus quality of life concerns, and measure that quality through "clinimetrics." Finally, they clearly communicate with patients and families when the "nothing more to do stage" has been reached. This brings about significant changes in physician behavior. They marshall their own internal resources as well as those of the community (e.g., hospice) toward comprehensive, palliative care for the patient with active support for the family.
Keywords:	Sociology, individual and family studies/ Sociology, theory and methods/ Social work/ Health sciences, medicine and surgery.

Author:	Butow PN, Kazemi JN, Beeney LJ, Griffin AM, Dunn SM, Tattersall MH
Title:	When the diagnosis is cancer: patient communication experiences and preferences
Journal:	Cancer

Year: 1996 Jun 15
Volume: 77
Number: 12
Pages: 2630-2637
Abstract: BACKGROUND: Discrepancies exist between reported experiences of patients when they have been given a diagnosis of cancer, published guidelines for telling a diagnosis, and patterns of communication patients rate as favorable. Several studies have identified what happened and what is important to cancer patients when told their diagnosis, but no studies have addressed subsequent communications concerning the implications of the diagnosis and treatment choices. This study extended previous research by investigating the experiences and preferences for communication about diagnosis, prognosis, and treatment of patients diagnosed with breast cancer or melanoma. METHODS: A self-report questionnaire was designed for this study based on previous research and qualitative data generated from focus groups. Patients with breast cancer or melanoma answered questions about their experiences with communication at the time of diagnosis and concerning prognosis, treatment and related issues. Comparisons were made between patient experiences, preferences and published guidelines. Differences between the experiences of breast cancer and melanoma patients were tested and the relationship between communication and subsequent psychological adjustment to cancer was assessed. RESULTS: Patient preferences for communication during diagnostic consultation were not always consistent with published guidelines. Type of cancer did not significantly affect patient preferences. Psychological adjustment was related to patient ratings of the quality of doctor discussion about treatment options, but not about the diagnosis of cancer and its implications. Patients who wanted more emotional support at the time of diagnosis subsequently experienced poorer psychological adjustment. CONCLUSIONS: The differences in patient preferences show that a list of prescriptions for how to disclose a cancer diagnosis is too simplistic. Guidelines for clinicians should be derived from patient-based data rather than be limited only to clinical opinion. Guidelines concerning communication at the time of diagnosis also need to address discussions concerning the implications of the diagnosis and making treatment decisions.
Keywords: Neoplasms--diagnosis; Neoplasms--psychology; Other Subjects (MeSH): Breast Neoplasms; Emotions; Melanoma; Patient Satisfaction; Physician-Patient Relations; Prognosis; Questionnaires; Limits: Adult; Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't.

Author: Cicirelli VG
Title: Relationship of psychosocial and background variables to older adults' end-of-life decisions
Journal: Psychology and Aging
Year: 1997 Mar
Volume: 12
Number: 1
Pages: 72-83
Abstract: Aims were to determine acceptability of a full range of end-of-life decision options and identify related variables; 388 Black and White older adults ages 60-100 responded to 17 decision situations depicting terminal and nonterminal conditions with a very low quality of life, rating the acceptability of 7 end-of-life options per decision situation, and completed demographic, health, and psychosocial measures. Despite low quality of life, maintaining life (striving to live and seeking treatment) was the most acceptable option, but a significant minority of participants wished to end life (suicide, assisted suicide, or euthanasia) and a moderate number wished to defer the decision to others. In hierarchical regressions, psychosocial variables (religiosity, values, fear of death, etc.) contributed significantly ($p < .05$) to decisions beyond the effects of demographic and health variables.
Keywords: Aging--psychology; Decision Making; Right to Die; Terminal Care--psychology; Other Subjects (MeSH): Euthanasia--psychology; Life Support Care--psychology; Personality Assessment; Quality of Life; Suicide, Assisted--psychology; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't.

Author: Cline RJ

Title: Interpersonal communication skills for enhancing physician-patient relationships
Journal: Maryland State Medical Journal
Year: 1983 Apr
Volume: 32
Number: 4
Pages: 272-278
Keywords: Communication; Physician-Patient Relations; Other Subjects (MeSH): Communication Barriers; Patient Compliance; Limits: Human.

Author: Cohen SJ, Robinson D, Dugan E, Howard G, Suggs PK, Pearce KF, Carroll DD, McGann P, Preisser J
Title: Communication between older adults and their physicians about urinary incontinence
Journal: Journals of Gerontology. Series A, Biological Sciences and Medical Sciences
Year: 1999 Jan
Volume: 54
Number: 1
Pages: M34-M37
Abstract: BACKGROUND: Urinary incontinence (UI) is a common but undertreated condition in older adults. The study objective was to determine older patients' characteristics related to communication patterns with their physicians about UI. METHODS: Telephone surveys of a sample of patients age 60 and older who visited a primary care provider (PCP) for any reason within the past 2 months were conducted. Participating physicians included general internists and family physicians from 41 primary care practices located in the 17 counties of northwest North Carolina whose 435 incontinent and 711 continent patients completed the surveys. The main outcome measures were patients' frequency and amount of urinary leakage, being asked about incontinence, and initiating a discussion of incontinence if not asked by their PCP. RESULTS: Age and gender were significant independent predictors of incontinence. PCPs were significantly more likely to assess incontinent women than incontinent men (21% vs 10%, p = .053). The older cohorts of older adults were significantly more likely to be symptomatic for UI than their younger counterparts. However, the younger cohorts were more likely to be screened for incontinence by their physicians. CONCLUSIONS: Despite the publication of guidelines on improving the screening and management of UI, the problem remains common and underdetected in older adults. Physicians don't ask and patients don't tell. Interventions are needed to remind physicians to screen high risk patients and to encourage patients with UI to communicate with their physicians.
Keywords: Communication; Physician-Patient Relations; Urinary Incontinence-- physiopathology; Other Subjects (MeSH): Age Factors; Analysis of Variance; Chi-Square Distribution; Cohort Studies; Family Practice; Forecasting; Internal Medicine; Interviews; Mass Screening; Outcome Assessment (Health Care); Patient Education; Practice Guidelines; Primary Health Care; Risk Factors; Sex Factors; Urinary Incontinence--diagnosis; North Carolina; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Coulombe L
Title: Talking with patients. Is it different when they are dying?
Journal: Canadian Family Physician
Year: 1995 Mar
Volume: 41
Number:
Pages: 423-437
Abstract: Talking with dying patients is different in some ways from talking with patients who do not have life-threatening illness; it can be frightening for physicians who have little experience. It is important to realize that, ultimately, the principles remain the same, and that the differences arise in the context and goals of the intervention. This article draws upon bedside experience to define several principles useful in talking with dying patients. Case examples illustrate each principle.
Keywords: Attitude to Death; Communication; Physician-Patient Relations; Terminal Care; Other Subjects

(MeSH): Attitude; Decision Making; Fear; Palliative Care; Patient Advocacy; Patient Participation; Physician's Role; Professional-Family Relations; Truth Disclosure; Limits: Human.

Author: Cowan DH, Laidlaw JC
Title: A strategy to improve communication between health care professionals and people living with cancer I. Improvement of teaching and assessment of doctor-patient communication in Canadian medical schools
Journal: Journal of Cancer Education.
Year: 1993 Summer
Volume: 8
Number: 2
Pages: 109-117
Abstract: A task force was established by the Canadian Cancer Society and the National Cancer Institute of Canada to make recommendations aimed at improving communication between health care professionals and people living with cancer. An annotated bibliography of the research literature on the subject was commissioned by the task force. This was followed by a research workshop. With this background, the task force organized a workshop on "The Teaching and Assessment of Communication Skills in Canadian Medical Schools." Participants included expert panelists; senior faculty from all Canadian medical schools; representatives from patient and ethnic groups, faculties of nursing and social work, the Canadian licensing and accrediting bodies, the College of Family Physicians of Canada, and the Royal College of Physicians and Surgeons of Canada. A consensus statement regarding general principles, recommendations, and requirements for implementation of improved teaching and assessment of doctor-patient communication in Canadian medical schools was produced and circulated widely throughout Canada. The initial response to this initiative has been positive.
Keywords: Communication; Education, Medical; Neoplasms; Physician-Patient Relations; Teaching--methods; Other Subjects (MeSH): Congresses; Curriculum; Education, Medical, Undergraduate; Follow-Up Studies; Schools, Medical; Canada; Limits: Human; Support, Non-U.S. Gov't .

Author: Cowan DH, Laidlaw JC Russell ML
Title: A strategy to improve communication between health care professionals and people living with cancer: II. Follow-up of a workshop on the teaching and assessment of communication skills in Canadian Medical Schools
Journal: Journal of Cancer Education
Year: 1997 Fall
Volume: 12
Number: 3
Pages: 161-165
Abstract: BACKGROUND AND METHODS: Follow-up questionnaires were sent to all Canadian medical schools in 1994 and 1996 in order to evaluate changes that had taken place in the teaching of physician-patient communication skills since recommendations were made by a national "Workshop on the Teaching and Assessment of Communication Skills in Canadian Medical Schools" in 1992. RESULTS AND CONCLUSIONS: Fifteen of 16 schools responded. All 15 reported major changes in the teaching of physician-patient communication over the preceding four years or planned changes in the very near future. However, barriers to improving the communications curriculum still existed. The most frequently cited barrier was the lack of trained faculty to teach communication skills; this was followed in frequency by poor coordination over the four years of medical school with lack of scheduled time in the clerkship years. There were identified needs to train faculty to teach communication skills and to extend formal teaching of the subject into the clerkship. Concurrent with these changes, the accreditation process for Canadian medical schools now requires the teaching and evaluation of communication skills.
Keywords: Communication; Medical Oncology; Physician-Patient Relations; Schools, Medical; Teaching; Other Subjects (MeSH): Curriculum; Education, Medical, Undergraduate; Follow-Up Studies; Questionnaires; Canada; Limits: Comparative Study; Support, Non-U.S. Gov't.

Author: D'Angelica M, Hirsch K, Ross H, Passik S, Brennan MF
Title: Surgeon-patient communication in the treatment of pancreatic cancer
Journal: Archives of Surgery
Year: 1998 Sep
Volume: 133
Number: 9
Pages: 962-966
Abstract: BACKGROUND: Effective physician-patient communication has been correlated with patient satisfaction and improved outcome. Pancreatic cancer (PC) is a disease with an overwhelmingly poor prognosis that requires a complex level of communication and emotional support. Since the treatment of PC is often surgical, surgeons play a central role in the care of these patients. OBJECTIVES: To assess the quality of long- and short-term surgeon-patient communication. To assess the role of the surgeon in the emotional support of patients with PC. DESIGN: Combined mail and telephone survey of a case series of patients who had undergone a pancreatic resection for PC. SETTING: Urban tertiary cancer referral center. PATIENTS: Forty-eight patients who underwent pancreatic resection for PC. INTERVENTION: Pancreatic resection. MAIN OUTCOME MEASURE: Patient satisfaction. RESULTS: Forty-eight patients completed surveys for a response rate of 70%. Patients were extremely satisfied with the information provided by their surgeon before surgery and while in the hospital. However, 21% of patients reported an unexpected outcome of their operation and 27% had questions about their disease at the time of the survey. Patients were largely satisfied with the emotional support they had received while in the hospital and after discharge. The attending surgeon was the most commonly desired source of additional emotional support. CONCLUSIONS: While surgeon-patient communication was extremely effective before surgery and during hospitalization, patients developed long-term questions and dissatisfaction after discharge from the hospital. Strategies to improve long-term support and communication would benefit a significant number of patients with operable PC. Surgeons play an important role in the emotional support of patients with operable PC.
Keywords: Communication; Pancreatic Neoplasms--psychology; Pancreatic Neoplasms--surgery; Physician-Patient Relations; Surgery; Other Subjects (MeSH): Patient Satisfaction; Questionnaires; Limits: Adult; Aged; Aged, 80 and over; Female; Human; Male; Middle Ages.

Author: Davis CM
Book Title: Patient practitioner interaction: an experiential manual for developing the art of health care.
Location: Thorofare, NJ
Pub.: SLACK Inc
Year: 1994
Ed. No.: 2nd ed
Pages: 209 pages
Keywords: Physical therapist and patient

Author: Doukas DJ, Doukas MA
Title: Considering advance directives for oncology patients
Journal: Primary Care; Clinics in Office Practice
Year: 1998 Jun
Volume: 25
Number: 2
Pages: 423-431
Abstract: Communication is an important cornerstone to the physician-patient relationship when considering advance directives. Discussing advance directives with patients is a process best initiated in routine, well-adult care that can be made more daunting when the patient is critically ill; yet, when patients are afflicted with cancer, communication on advance directives can be optimized when the primary care physician and oncologist together work with the patient. The need to counsel patients on advance directives regardless of the venue (whether inpatient or

outpatient) highlights that an ongoing alliance between the oncologist and the primary care physician can help facilitate consent to, and allow periodic review of, advance directives by cancer patients. This process ensures that the patient's preferences are respected at life's end.
Keywords: Advance Directives; Carcinoma, Small Cell--psychology; Counseling--methods; Lung Neoplasms--psychology; Patient Education--methods; Physician-Patient Relations; Other Subjects (MeSH): Carcinoma, Small Cell--therapy; Family Practice; Interprofessional Relations; Lung Neoplasms--therapy; Medical Oncology; Patient Care Team; Patient Participation; Limits: Aged; Case Report; Human; Male.

Author: Fallowfield L, Lipkin M, Hall A
Title: Teaching senior oncologists communication skills: results from phase I of a comprehensive longitudinal program in the United Kingdom
Journal: Journal of Clinical Oncology
Year: 1998 May
Volume: 16
Number: 5
Pages: 1961-1968
Abstract: PURPOSE: To determine the communication difficulties experienced by clinicians in cancer medicine and to develop, implement, and evaluate communication skills training courses. METHODS: One hundred seventy-eight senior clinicians attended 1 1/2- or 3-day residential courses designed to enhance skills development, knowledge acquisition, and personal awareness. Course content included structured feedback, video review of interviews, interactive group demonstrations, and discussion in groups of four led by trained facilitators. The main outcomes were self-rated confidence in key aspects of communication, attitudinal shift toward more patient-centered interviewing, perceived changes in personal practice, and initiation of teaching programs for junior staff. RESULTS: Less than 35% of the participants had received any previous communications training. Time, experience, and seniority had not improved skills; before the course, oncologists expressed difficulty with 998 different communication issues. Primary problems concerned giving complex information, obtaining informed consent, and handling ethnic and cultural differences. Confidence ratings for key communication areas were significantly improved postcourse (P < .01). Three months postcourse, 95% of the physicians reported significant changes in their practice of medicine. Seventy-five percent had started new teaching initiatives in communication for junior clinicians. Clinicians showed positive shifts in attitude toward patients' psychosocial needs (P=.0002) and were more patient centered (P=.03). The courses were highly rated and 97% would "definitely" recommend them to colleagues. CONCLUSION: Oncologists are hampered by inadequate communication skills training and will give up time to correct this. Subjective improvements reported immediately postcourse were maintained at 3 months. Resources for educational initiatives are needed to help both patients and their physicians.
Keywords: Communication; Education, Medical, Continuing; Medical Oncology—education; Other Subjects (MeSH): Physician-Patient Relations; Great Britain; Limits: Human; Support, Non-U.S. Gov't.

Author: Ford S, Fallowfield L, Lewis S
Title: Doctor-patient interactions in oncology.
Journal: Social Science and Medicine
Year: 1996 Jun
Volume: 42
Number: 11
Pages: 1511-1519
Abstract: Studies which apply content analysis techniques to the cancer consultation are few. This descriptive study examines the structure and content of the bad news cancer consultations of 117 outpatients newly referred to the Medical Oncology Department of a large London teaching hospital. From previous communication research three main hypotheses are formed: (i) the cancer consultation is clinician-dominated rather than patient-centred; (ii) the level of psychosocial discussion between clinicians and patients is low and (iii) patient characteristics such as sex, age and prognostic category influence clinician behaviours. Each patient had two

consultations with one of 5 oncologists. Both these were audiotaped with the patients' consent. The tapes were content coded using the Roter Interaction Analysis System. Results showed that clinicians tended to use closed rather than open questions. Patients asked few questions and were seldom given space to initiate discussion. Thus, the level of patient-centredness was low. Despite the fact that consultations concerned life threatening disease and often contained information regarding toxic treatment which is known to provoke psychological dysfunction, the number of questions relating to patients' psychological health were few. The amount of discussion concerning medical topics from both parties was 2.5 times greater than the amount of psychosocial discussion. Although there was a suggestion in the data that 3 clinicians showed variations in behaviour according to patient age and prognostic group, the number of patients for each doctor was small. Patients were well informed about their diagnosis, prognosis and treatment options, but their emotional well-being was rarely probed

Keywords: Interviews--methods; Medical Oncology--methods; Neoplasms--psychology; Physician-Patient Relations; Truth Disclosure; Other Subjects (MeSH): Communication Barriers; Medical Oncology--education; Patient Education--methods; Physician's Role; Sick Role; Social Dominance; Great Britain; Limits: Adult; Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't.

Author: Frederikson LG
Title: Exploring information-exchange in consultation: the patients' view of performance and outcomes
Journal: Patient Education and Counseling
Year: 1995 Jul
Volume: 25
Number: 3
Pages: 237-246
Abstract: Many prescriptions for the 'ideal' consultation highlight the need for discussion, information and explanation as adjuncts to the task of diagnosis and treatment. While there is evidence for the importance of these activities in terms of patient satisfaction, there has been no empirical test of their specific performance in practice, nor of an association between these activities and a range of other outcomes. The present study explores these issues in the context of Frederikson's information-exchange model of medical consultation, using the concept of information-exchange tasks as process variables. Results show that the information-exchange tasks are important to patients, and doctor performance on the tasks provides a good predictor of satisfaction. In addition, it is shown that the immediate outcome measures of patient understanding, the developing doctor-patient relationship, the patient's view of the appropriateness of treatment, and the perceptions of the doctor's response are each related to a particular sub-set of information-exchange activities. It is concluded that attending to the concepts, perceptions and views of the patient offers a more effective strategy for consultation management than a focus on providing vast amounts of standardized information.
Keywords: Patient Education; Physician-Patient Relations; Referral and Consultation; Other Subjects (MeSH): Communication; Models, Psychological; Outcome and Process Assessment (Health Care); Patient Satisfaction; Limits: Adolescence; Adult; Aged; Female; Human; Male; Middle Age.

Author: Fried TR, Rosenberg RR, Lipsitz LA
Title: Older community-dwelling adults' attitudes toward and practices of health promotion and advance planning activities
Journal: Journal of the American Geriatrics Society
Year: 1995 Jun
Volume: 43
Number: 6
Pages: 645-649
Abstract: OBJECTIVE: To describe the attitudes toward and practice of health prevention and advance planning measures by a group of community-dwelling older adults and to examine the effect of age on these practices. DESIGN: A descriptive study performed by mail survey. PARTICIPANTS: Members of a research registry who were 65 years of age or older.

MEASUREMENTS: By means of a written questionnaire, we asked about knowledge of various health prevention and advance planning topics, including exercise, cholesterol screening, rectal examination, influenza vaccination, sigmoidoscopy, mammography, prostate cancer screening, organ donation, autopsy, health care proxy, and advance directives. Of those who knew about the topic, we asked if the respondent had discussed it with a physician, who initiated the conversation, and if the respondent participated in the activity. We also asked how important the topic was to the respondent. RESULTS: We received 598 completed surveys, a response rate of 83%. Respondents had a mean age of 74 years, were predominately white (96%), and were well educated, with 44% having completed college. The respondents were all knowledgeable about the topics, and, with the exception of sigmoidoscopy, organ donation, and autopsy, more than 70% thought these topics were important. In the case of health screening and prevention activities, a large percentage of respondents reported having discussed the topic with a physician, and a slightly smaller percentage reported regular participation. In the case of health care proxies and advance directives, however, only about one-half of those who had made these arrangements said they had discussed them with a physician. When discussion did occur, it was much more likely to have been initiated by the respondent. Controlling for level of education, age was inversely associated with the likelihood of a woman reporting she had undergone mammography ($P < .05$). Age, however, was not associated with decreased frequency of undergoing other screening tests. CONCLUSIONS: Among a group of well educated older adults, reported interest in and compliance with health screening, health promotion, and advance planning activities were high. However, sigmoidoscopy, a relatively more invasive procedure that is generally recommended as a screening tool, is reported less likely to be practiced than prostate cancer screening, a less invasive procedure without such recommendation. Older adults state they are pursuing health care proxies and advance directives, often without the involvement of their physicians. Of the screening tests about which we asked, age was associated only with less frequent practice of mammography.

Keywords: Health Promotion; Knowledge, Attitudes, Practice; Preventive Medicine; Other Subjects (MeSH): Advance Directives; Autopsy; Cholesterol--blood; Educational Status; Exercise; Influenza Vaccine; Mammography; Patient Participation; Physician-Patient Relations; Prostatic Neoplasms--prevention & control; Rectal Diseases--prevention & control; Sigmoidoscopy; Tissue Donors; Vaccination; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Ganz PA
Title: Interaction between the physician and the older patient: the oncologist's perspective
Journal: Cancer
Year: 1997 Oct 1
Volume: 80
Number: 7
Pages: 1323-1325
Abstract: This article discusses the oncologist's perspective regarding communication with older cancer patients. Decision-making about the treatment of these patients should be influenced by physiologic and not chronologic age. Patient preferences are very important, and it is critical to consider quality rather than quantity of life. The oncologist should strive to understand the patient's preferences and ensure that they are addressed and reassessed throughout the course of treatment.
Keywords: Neoplasms--therapy; Physician-Patient Relations; Quality of Life; Aged--psychology; Other Subjects (MeSH): Comorbidity; Geriatric Assessment; Medical Oncology; Neoplasms--diagnosis; Limits: Human.

Author: Glimelius B, Birgegeard G, Hoffman K, Kvale G, Sjeodaen PO
Title: Information to and communication with cancer patients: improvements and psychosocial correlates in a comprehensive care program for patients and their relatives
Journal: Patient Education and Counseling
Year: 1995 May
Volume: 25
Number: 2

Pages: 171-182

Abstract: Between 1987 and 1989, 177 cancer patients who were to receive intensive chemotherapy with curative intention, participated in a comprehensive care project with the aim of improving their total situation, and that of their relatives (n = 120). A number of steps were taken to improve, among other things, the information to, and communication with, patients and their relatives. Compared with a pre-project evaluation in 54 patients and 24 relatives, significantly lower problem scores were seen in most aspects relating to interaction with medical staff. Strong associations were seen between, on the one hand, various aspects of patient- and relative-staff interaction and, on the other, psychosocial problems, although they were weaker for problems relating to information, than for communication and control problems.

Keywords: Communication; Comprehensive Health Care--organization & administration; Family--psychology; Neoplasms--therapy; Patient Education; Other Subjects (MeSH): Neoplasms--psychology; Limits: Female; Human; Male; Support, Non-U.S. Gov't.

Author: Gordon T, Sterling Edwards W

Book Title: Making the patient your partner: communication skills for doctors and other caregivers

Year: 1995

Abstract: Health professionals need to learn the communication skills that will create collaborative and mutually satisfying relationships with patients. The failure of doctors to relate effectively to patients results in non-compliance, malpractice suits, longer stays in hospitals and other negative outcomes. Interpersonal skills can be easily learned by studying the techniques described by Gordon and Edwards. Using cases, interviews, dialogues, and vignettes, the authors provide effective models or blueprints for health professionals to follow. This book is written for all health professionals who relate directly to patients, such as doctors, nurses, psychologists, hospital chaplains, and social workers. It is also a book for all others who give care to the ill: hospital and hospice volunteers, nursing home personnel, spouses, families, and friends.

Keywords: *Communication Skills *Therapeutic Processes *Health Personnel/ Caregivers Communication Skills Training Patients Physicians/ Communication & Interpersonal Skills For Effective Relationships With Patients/ Doctors & Caregivers.

Author: Haidet P, Hamel MB, Davis RB, Wenger N, Reding D, Kussin PS, Connors AF Jr., Lynn J, Weeks JC, Phillips RS

Title: Outcomes, preferences for resuscitation, and physician-patient communication among patients with metastatic colorectal cancer. SUPPORT Investigators. Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments

Journal: American Journal of Medicine

Year: 1998 Sep

Volume: 105

Number: 3

Pages: 222-229

Abstract: PURPOSE: To describe characteristics, outcomes, and decision making in patients with colorectal cancer metastatic to the liver, and to examine the relationship of doctor-patient communication with patient understanding of prognosis and physician understanding of patients' treatment preferences. PATIENTS AND METHODS: The Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments (SUPPORT) was a prospective cohort study conducted at five teaching hospitals in the United States between 1989 and 1994. Participants in this study were hospitalized patients 18 years of age or older with known liver metastases who had been diagnosed with colorectal cancer at least 1 month earlier. Data were collected by patient interview and chart review at study entry; patients were interviewed again at 2 and 6 months. Data collected by physician interview included estimates of survival and impressions of patients' preferences for cardiopulmonary resuscitation (CPR). Patients and physicians were also asked about discussions about prognosis and resuscitation preferences. RESULTS: We studied 520 patients with metastatic colorectal cancer (median age 64, 56% male, 80% white, 2-month survival 78%, 6-month survival 56%). Quality of life (62% "good" to "excellent") and functional status (median number of disabilities = 0) were high at study entry and remained so among interviewed survivors at 2 and 6 months. Of 339 patients with available information, 212 (63%) of 339 wanted CPR in the event of a cardiopulmonary arrest. Factors independently associated with preference for resuscitation included younger age, better quality of life, absence of lung metastases, and greater patient estimate of 2-month prognosis. Of the patients who preferred not to receive CPR, less than half had a do-not-resuscitate note or order written. Patients' self-assessed prognoses were less accurate than those of their physicians. Physicians incorrectly identified patient CPR preferences in 30% of cases. Neither patient prognostication nor physician understanding of preferences were significantly better when discussions were reported between doctors and patients. CONCLUSIONS: A majority of patients with colorectal cancer have preferences regarding end of life care. The substantial misunderstanding between patients and their physicians about prognosis and treatment preferences appears not to be improved by direct communication. Future research focused on enhancing the effectiveness of communication between patients and physicians about end of life issues is needed.

Keywords: Cardiopulmonary Resuscitation; Colorectal Neoplasms--psychology; Communication; Physician-Patient Relations; Other Subjects (MeSH): Colorectal Neoplasms--pathology; Prognosis; Survival Analysis; Treatment Outcome; Limits: Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Hall JA, Roter DL, Milburn MA, Daltroy LH
Title: Patients' health as a predictor of physician and patient behavior in medical visits. A synthesis of four studies
Journal: Medical Care
Year: 1996 Dec
Volume: 34
Number: 12
Pages: 1205-1218
Abstract: OBJECTIVES: Although some patient characteristics are known to be related to physician and patient communication in medical encounters, very little is known about the impact of patients' health status on communication processes. The authors assess relations of patients' physical and emotional health status to verbal and nonverbal communication between physicians and patients in four original studies, and combine results across the four studies using meta-analytic procedures. METHODS: In four original studies of routine outpatient visits (consisting of more than 250 physicians and more than 1,300 patients), health status was measured and audiotape or videotape records were coded for verbal content and nonverbal cues indicating task-related behavior and affective reactions on the part of both the physician and the patient. Both physical and mental health data were obtained, using physicians and/or patients as sources; in two studies, physicians' satisfaction with the visit also was measured. All available background characteristics for both physicians and patients were controlled via partial correlations. The meta-analytic procedures used were the unweighted and weighted (by sample size) average partial correlations, the combined P across studies (Stouffer method), and the test of effect size heterogeneity. RESULTS: Physicians showed signs of negative response to sicker or more emotionally distressed patients, both in their behavior and in their ratings of satisfaction with the visit. Sicker patients also behaved more negatively than healthier patients. However, physicians also engaged in a variety of positive and professionally appropriate behaviors with the sicker or more distressed patients. This mixed pattern of responses is discussed in terms of alternative frameworks: the physician's goals, reciprocation of affect, and ambivalence on the part of the physician. CONCLUSIONS: The patient's health status appears to influence physician-patient communication. In clinical practice, increased attention by physicians to their own and their patients' behavior may enhance diagnosis and prevent misunderstandings.
Keywords: Health Status; Mental Health; Physician-Patient Relations; Other Subjects (MeSH): Communication; Emotions; Office Visits; Outpatient Clinics, Hospital; Massachusetts; Limits: Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Harvey VL
Title: Proactive communication and cancer patients (social support)
Location: University Of Denver

Year: 1993
Pages: 273 pages
Abstract: The purpose of the present study was to develop and test a theory of proactive communication. Briefly, proactive communication involves communicative acts of information seeking and decision-making by individuals with a life threatening illness that culminate in their participating in an intensive alternative approach to achieving well-being such as a workshop or retreat. Participation is the essence of proactive communication. Participation is not the only action that makes one proactive but it is participation that distinguishes who is proactive from who is not. The research design consisted of two Phases. Phase One, a quantitative study, involved 118 subjects, who had cancer. Five self-report research instruments were employed to gather the data. Phase Two, a qualitative study, employed 23 interviewees, who had cancer. The data were collected by means of interviews either in person or by telephone. In Phase One, no support was found for any of the four hypotheses tested. In Phase Two, some support was found for the hypothesis concerning social support and proactive communication. More proactive subjects tended to have larger social support systems than less proactive subjects.
Keywords: Speech communication/ Health sciences, mental health/ Psychology, physiological.

Author: Hofmann JC, Wenger NS, Davis RB, Teno J, Connors AF Jr., Desbiens N, Lynn J, Phillips RS
Title: Patient preferences for communication with physicians about end-of-life decisions. SUPPORT Investigators. Study to Understand Prognoses and Preference for Outcomes and Risks of Treatment
Journal: Annals of Internal Medicine
Year: 1997 Jul 1
Volume: 127
Number: 1
Pages: 1-12
Abstract: BACKGROUND: Physicians are frequently unaware of patient preferences for end-of-life care. Identifying and exploring barriers to patient-physician communication about end-of-life issues may help guide physicians and their patients toward more effective discussions. OBJECTIVE: To examine correlates and associated outcomes of patient communication and patient preferences for communication with physicians about cardiopulmonary resuscitation and prolonged mechanical ventilation. DESIGN: Prospective cohort study. SETTING: Five tertiary care hospitals. PATIENTS: 1832 (85%) of 2162 eligible patients completed interviews. MEASUREMENTS: Surveys of patient characteristics and preferences for end-of-life care; perceptions of prognosis, decision making, and quality of life; and patient preferences for communication with physicians about end-of-life decisions. RESULTS: Fewer than one fourth (23%) of seriously ill patients had discussed preferences for cardiopulmonary resuscitation with their physicians. Of patients who had not discussed their preferences for resuscitation, 58% were not interested in doing so. Of patients who had not discussed and did not want to discuss their preferences, 25% did not want resuscitation. In multivariable analyses, patient factors independently associated with not wanting to discuss preferences for cardiopulmonary resuscitation included being of an ethnicity other than black (adjusted odds ratio [OR], 1.48 [95% CI, 1.10 to 1.99), not having an advance directive (OR, 1.35 [CI, 1.04 to 1.76]), estimating an excellent prognosis (OR, 1.72 [CI, 1.32 to 2.59]), reporting fair to excellent quality of life (OR, 1.36 [CI, 1.05 to 1.76]), and not desiring active involvement in medical decisions (OR, 1.33 [CI, 1.07 to 1.65]). Factors independently associated with wanting to discuss preferences for resuscitation but not doing so included being black (OR, 1.53 [CI, 1.11 to 2.11]) and being younger (OR, 1.14 per 10-year interval younger [CI, 1.04 to 1.25]). CONCLUSIONS: Among seriously ill hospitalized adults, communication about preferences for cardiopulmonary resuscitation is uncommon. A majority of patients who have not discussed preferences for end-of-life care do not want to do so. For patients who do not want to discuss their preferences, as well as patients with an unmet need for such discussions, failure to discuss preferences for cardiopulmonary resuscitation and mechanical ventilation may result in unwanted interventions.
Keywords: Communication; Patient Satisfaction; Physician-Patient Relations; Terminal Care--psychology; Other Subjects (MeSH): Cardiopulmonary Resuscitation; Decision Making; Multivariate Analysis; Outcome Assessment (Health Care); Prognosis; Prospective Studies; Quality of Life; Respiration, Artificial; Limits: Adult; Female; Human; Male; Middle Age; Support, Non-U.S.

Gov't; Support, U.S. Gov't, P.H.S.

Author:	Irish JT
Title:	Deciphering the physician-older patient interaction
Journal:	International Journal of Psychiatry in Medicine
Year:	1997
Volume:	27
Number:	3
Pages:	251-267
Abstract:	OBJECTIVE: The purpose of this article is to provide a commentary on non-verbal communication in the physician-older patient interaction. METHOD: A literature review of physician-older patient communication yielded several published studies on this topic. Nonverbal behaviors were rarely examined in this body of literature even though the need to adopt a more "biopsychosocial" model of care was mentioned in several of the articles. The nonverbal communication literature was also reviewed to determine whether aging had been a variable of interest with regard to encoding (sending) and decoding communication (receiving) skills. RESULTS: To date there have been very few studies that have investigated the role of nonverbal communication in the physician-older patient interaction. Selected encoding and decoding characteristics for both physicians and patients are discussed with the context of the aging process. In lieu of direct evidence linking nonverbal behavior and physician-older patient communication, possible implications are offered for the following characteristics: expression of emotion, pain expression, gestures, gaze, touch, hearing, and vocal affect. Three relevant outcomes (satisfaction with care, quality of life, and health status) are also discussed within the nonverbal behavior-aging framework. CONCLUSION: The connection between nonverbal behavior and how physicians and older patients interact with one another has not been rigorously examined. Identifying and improving nonverbal communication will likely enhance the verbal exchange in the medical encounter and may improve the older patient's quality of care.
Keywords:	Aging--psychology; Nonverbal Communication; Physician-Patient Relations; Other Subjects (MeSH): Geriatric Assessment; Health Status; Primary Health Care; Quality of Life; Verbal Behavior; Limits: Aged; Female; Human; Male.

Author:	Johnston SC, Pfeifer MP, McNutt R
Title:	The discussion about advance directives. Patient and physician opinions regarding when and how it should be conducted. End of Life Study Group
Journal:	Archives of Internal Medicine
Year:	1995 May 22
Volume:	155
Number:	10
Pages:	1025-1030
Abstract:	BACKGROUND: Widely publicized court cases have focused national attention on the importance of advance directives. In spite of initiatives such as the Patient Self-Determination Act of 1991, fewer than 10% of Americans have prepared advance directives. One way to increase the preparation of advance directives may be to increase the frequency and quality of discussions about them between individual patients and their physicians. We performed a multicenter observational study to assess the opinions of primary care patients and physicians regarding these discussions. METHODS: This was a cross-sectional descriptive survey of randomly selected primary care patients and physicians in eight primary care internal medicine clinics in the eastern and midwestern United States. Quantitative questionnaires were used to elicit subjects' demographic characteristics, and their opinions regarding the timing, content, and location of discussions about advance directives. RESULTS: The 883 subjects included 329 adult outpatients, 282 resident physicians, and 272 practicing physicians. Physician and patient response rates were 75% and 76%, respectively. Patients felt that the discussion should occur earlier than did the physicians: at an earlier age, earlier in the natural history of disease, and earlier in the patient-physician relationship. Most subjects agreed it was the physician's responsibility to initiate the discussion. CONCLUSION: We defined a discrepancy between the preferences of primary care patients and physicians regarding the timing of the

discussion about advance directives. We propose physician education regarding patient preferences as the most effective way to accomplish the goal of improving the frequency and quality of discussions about advance directives.

Keywords: Advance Directives; Attitude; Physician-Patient Relations; Other Subjects (MeSH): Attitude of Health Personnel; Communication; Cross-Sectional Studies; Internship and Residency; Physicians; Limits: Adult; Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Kaplan SH, Gandek B, Greenfield S, Rogers W, Ware JE
Title: Patient and visit characteristics related to physicians' participatory decision-making style. Results from the Medical Outcomes Study
Journal: Medical Care
Year: 1995 Dec
Volume: 33
Number: 12
Pages: 1176-1187
Abstract: This article identifies the characteristics of patients and office visits associated with decreased mutual decision-making between physicians and patients. In the baseline cross-sectional survey of the Medical Outcomes Study we measured specific patient characteristics hypothesized to influence participatory decision-making (PDM) styles of physicians. We related these characteristics to the PDM style scores for their physicians. The study was conducted in solo practices, multi-specialty groups, and health maintenance organizations in Boston, Chicago, and Los Angeles. Over a 9-day period in 1986, 8,316 patients were sampled from the practices of 344 participating Medical Outcome Study physicians, representing general internal medicine, family practice, cardiology and endocrinology. Physicians' PDM style was measured using a 3-item scale included on the baseline questionnaire completed by patients after office visits to their Medical Outcome Study physicians. We found that the elderly (age 75 and older) and young adult (younger than age 30) patients, patients with high school education or less, minority patients, and male patients had the least participatory visits with their physicians. We also found that male patients seeing male physicians had the least participatory visits compared with male patients seeing female physicians, and compared with female patients seeing physicians of either gender. Our data indicated that PDM style increased as duration or tenure of the physician-patient relationship increased. Participatory decision-making style also increased with increasing length of office visits. The role of effective interpersonal care in optimizing patients' health outcomes may be underappreciated. We have identified seven patient and visit characteristics that maximize or compromise the effectiveness of interpersonal care. Recognizing those at risk for suboptimal interpersonal care may be a first step in improving the management of chronic disease. Key words: participatory decision-making style; interpersonal care; doctor-patient communication.
Keywords: Decision Making; Office Visits--statistics & numerical data; Patient Participation; Physician-Patient Relations; Other Subjects (MeSH): Appointments and Schedules; Cross-Sectional Studies; Demography; Longitudinal Studies; Questionnaires; Sex Factors; Boston; Chicago; Los Angeles; Limits: Adult; Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Kaplan SH, Greenfield S, Gandek B, Rogers WH, Ware JE Jr.
Title: Characteristics of physicians with participatory decision-making styles
Journal: Annals of Internal Medicine
Year: 1996 Mar 11
Volume: 124
Number: 5
Pages: 497-504
Abstract: OBJECTIVES: To identify physician and practice characteristics associated with a physician's propensity to involve patients in diagnostic and treatment decisions, or participatory decision-making style. DESIGN: A representative cross-sectional sample of patients participating in the Medical Outcomes Study characterized each physician's style by using a self-reported questionnaire. A single averaged style score was generated for each physician. Style scores

were compared among physicians who differed in age, sex, minority status, specialty, primary care training or training in interviewing skills, satisfaction with professional autonomy, and practice volume. SETTINGS: Solo practices, multispecialty groups, and health maintenance organizations in Boston, Chicago, and Los Angeles. PARTICIPANTS: 7730 patients sampled over 9 days from the practices of 300 physicians. Physicians were practicing general internal medicine, family medicine, cardiology, and endocrinology. MEASUREMENTS: Participatory decision-making style was measured using a three-item scale on a questionnaire that was completed by patients after their office visit. Physician and practice characteristics were reported by physicians on self-administered questionnaires. RESULTS: Among patients of physicians who were rated in the lowest (least participatory) quartile, one third changed physicians in the following year; among patients of physicians who were rated in the highest quartile, only 15% changed physicians. Higher scores were associated with greater patient satisfaction. Physicians who had had primary care training or training in interviewing skills scored higher than those without such training. Physicians in higher-volume practices were rated as less participatory than those in lower-volume practices. Physicians who were satisfied with their level of professional autonomy were rates as more participatory than those who were dissatisfied. CONCLUSION: Participatory decision-making style is influenced by physicians' background, training, practice volume, and professional autonomy. Because participatory decision-making style is related to patient satisfaction and loyalty to the physician, cost-containment strategies that reduce time with patients and decrease physician autonomy may result in suboptimal patient outcomes.

Keywords: Decision Making; Patient Participation; Physician's Practice Patterns; Physicians--psychology; Other Subjects (MeSH): Cross-Sectional Studies; Physician-Patient Relations; Questionnaires; Specialties, Medical; Limits: Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Kaplan SH, Greenfield S, Ware JE Jr.
Title: Assessing the effects of physician-patient interactions on the outcomes of chronic disease
Journal: Medical Care
Year: 1989 Mar
Volume: 27
Number: 3 Suppl
Pages: S110-S127
Abstract: Growing interest in the doctor-patient relationship focuses attention on the specific elements of that relationship that affect patients' health outcomes. Data are presented for four clinical trials conducted in varied practice settings among chronically ill patients differing markedly in sociodemographic characteristics. These trials demonstrated that "better health" measured physiologically (blood pressure or blood sugar), behaviorally (functional status), or more subjectively (evaluations of overall health status) was consistently related to specific aspects of physician-patient communication. We conclude that the physician-patient relationship may be an important influence on patients' health outcomes and must be taken into account in light of current changes in the health care delivery system that may place this relationship at risk.
Keywords: Chronic Disease; Communication; Outcome and Process Assessment (Health Care); / Physician-Patient Relations; Other Subjects (MeSH): Affect; Chronic Disease--psychology; Clinical Trials; Consumer Satisfaction; Health Status; Random Allocation; Tape Recording; Limits: Adult; Aged; Human; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Krumholz HM, Phillips RS, Hamel MB, Teno JM, Bellamy P, Broste SK, Califf RM, Vidaillet H, Davis RB, Muhlbaier LH Connors AF Jr, Lynn J, Goldman L
Title: Resuscitation preferences among patients with severe congestive heart failure: results from the SUPPORT project. Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments
Journal: Circulation
Year: 1998 Aug 18
Volume: 98
Number: 7
Pages: 648-655
Abstract: BACKGROUND: We sought to describe the resuscitation preferences of patients hospitalized

with an exacerbation of severe congestive heart failure, perceptions of those preferences by their physicians, and the stability of the preferences. METHODS AND RESULTS: Of 936 patients in this study, 215 (23%) explicitly stated that they did not want to be resuscitated. Significant correlates of not wanting to be resuscitated included older age, perception of a worse prognosis, poorer functional status, and higher income. The physician's perception of the patient's preference disagreed with the patient's actual preference in 24% of the cases overall. Only 25% of the patients reported discussing resuscitation preferences with their physician, but discussion of preferences was not significantly associated with higher agreement between the patient and physician. Of the 600 patients who responded to the resuscitation question again 2 months later, 19% had changed their preferences, including 14% of those who initially wanted resuscitation (69 of 480) and 40% of those who initially did not (48 of 120). The physician's perception of the patient's hospital resuscitation preference was correct for 84% of patients who had a stable preference and 68% of those who did not. CONCLUSIONS: Almost one quarter of patients hospitalized with severe heart failure expressed a preference not to be resuscitated. The physician's perception of the patient's preference was not accurate in about one quarter of the cases. but communication was not associated with greater agreement between the patient and the physician. A substantial proportion of patients who did not want to be resuscitated changed their minds within 2 months of discharge.

Keywords: Heart Failure, Congestive--psychology; Heart Failure, Congestive--therapy; Physician-Patient Relations; Physicians--psychology; Resuscitation Orders--psychology; Other Subjects (MeSH): Age Factors; Chronic Disease; Heart Failure, Congestive--classification; Interviews; Prognosis; Quality of Life; Sex Factors; Socioeconomic Factors; Survival Analysis; Time Factors; Limits: Adult; Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't.

Author: Lerman C, Daly M, Walsh WP, Resch N, Seay J, Barsevick A, Birenbaum L, Heggan T, Martin G

Title: Communication between patients with breast cancer and health care providers. Determinants and implications

Journal: Cancer

Year: 1993 Nov 1

Volume: 72

Number: 9

Pages: 2612-2620

Abstract: BACKGROUND. This study evaluated the perceptions of patients with breast cancer of their medical interactions with providers. The determinants and psychological consequences of communication problems also were examined. METHODS. Ninety-seven patients with Stage I or II breast cancer completed a set of validated questionnaires before initiating postoperative therapy. Data on psychological distress were collected at baseline and 3-month follow-up, and multivariate models were fit to explain the relationship between pretreatment communication problems and subsequent psychological distress. Data on clinical variables were abstracted from medical records. RESULTS. A substantial proportion of patients (84%) reported difficulties communicating with the medical team. Communication problems were more common among patients who were less optimistic about their disease and had less assertive coping styles. Patient-reported communication problems were associated with increased anxiety, depression anger, and confusion at the 3-month follow-up. The association between communication problems and mood disturbance remained significant, although small, after adjusting for baseline mood disturbance, demographic, clinical, and coping style variables. CONCLUSION. Interventions that enhance communication between patients with breast cancer and their providers may improve patients' psychological adjustment to treatment. Conversely, interventions that lower distress and modify coping style may enhance communication.

Keywords: Breast Neoplasms--psychology; Communication; Other Subjects (MeSH): Adaptation, Psychological; Analysis of Variance; Health Personnel; Limits: Adult; Aged; Female; Human; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Levin JR, Wenger NS, Ouslander JG, Zellman G, Schnelle JF, Buchanan JL, Hirsch SH, Reuben DB

Title:	Life-sustaining treatment decisions for nursing home residents: who discusses, who decides and what is decided?
Journal:	Journal of the American Geriatrics Society
Year:	1999 Jan
Volume:	47
Number:	1
Pages:	82-87
Abstract:	OBJECTIVE: To evaluate whether nursing home residents and their families reported discussions about life-sustaining treatment with their physicians, the relationship between such discussions and orders to limit therapy, and predictors of physician-patient communication about life-sustaining treatment. DESIGN: Cross-sectional interviews and retrospective chart abstraction. SETTING: Three regions: West Coast, New England, Western. SAMPLE: A total of 413 nursing home residents, 363 family/surrogate interviews, and 192 resident interviews. MAIN OUTCOME MEASURES: Measured were (1) physician-resident communication about life-sustaining treatment and (2) presence of an advance directive or do not resuscitate (DNR) order in resident's chart. RESULTS: Seventy-four percent of residents had DNR orders, and 32% had advance directives; only 29% of residents reported discussions about life-sustaining treatment. Of residents with DNR orders who could have participated in discussions about life-sustaining treatment, nearly half reported they had not discussed CPR with their caregivers. Older age, longer duration of time living in nursing home, location in a New England nursing home, physician-family member discussion, and the presence of an advance directive in the medical chart were positively associated with having DNR orders. Physician-resident discussion was not associated with having a DNR order. For the subsample of interviewed residents, age and a diagnosis of cognitive impairment were negatively associated with a physician-resident discussion about life-sustaining treatment, whereas the likelihood of having a discussion increased with increasing numbers of medical diagnoses. CONCLUSIONS: Chart orders to limit therapy are common, but physician-resident discussions about life-sustaining treatments are not. Far more family members than residents report such discussions with the resident's physicians.
Keywords:	Advance Directives--psychology; Communication; Decision Making; Family--psychology; Life Support Care--psychology; Nursing Homes; Physician-Patient Relations; Resuscitation Orders; Other Subjects (MeSH): Analysis of Variance; Cross-Sectional Studies; Mental Competency; Questionnaires; Retrospective Studies; Limits: Adult; Aged; Aged, 80 and over; Female; Human; Male; Middle Age.

Author:	Levinson W, Stiles WB, Inui TS, Engle R
Title:	Physician frustration in communicating with patients
Journal:	Medical Care
Year:	1993 Apr
Volume:	31
Number:	4
Pages:	285-295
Abstract:	In this study, the nature of practicing physicians' "frustrating" visits was explored and a guide to help physicians identify problems in communicating with patients was developed. The study included 1,076 practicing physicians who attended a voluntary workshop on physician-patient communication. The physicians were from multiple specialties and diverse work settings geographically dispersed throughout the United States. The method included development of a preliminary item pool (descriptions of frustrating patients and occasions) by experienced physicians and teachers of medical communication, additions/deletions/revisions of items within the pool, empirical analyses to reduce redundancy and group-like items, and construct validation of the final 25-item questionnaire. Factor analysis was used to identify subscales. Physicians most often attributed communication problems to the patient rather than to their own limitations. Seven types of communication problems (subscales) were identified, including: 1) lack of trust/agreement, 2) too many problems, 3) feeling distressed, 4) lack of understanding, 5) lack of adherence, 6) demanding/controlling patient, and 7) special problems. Primary care physicians reported greater problems than specialists on four subscales. Physicians practicing in health maintenance organizations reported greater problems than physicians in fee-for-service practice on five subscales. Seven sources of

frustration physicians experience in their work with patients were identified. Understanding these frustrations will allow physicians to reflect on their own experiences and potentially improve the quality of their patient visits.

Keywords: Communication; Frustration; Physician-Patient Relations; Physicians--psychology; Other Subjects (MeSH): Health Maintenance Organizations; Machiavellianism; Patient Compliance; Physicians--statistics & numerical data; Private Practice; Questionnaires; Stress, Psychological; United States; Limits: Adult; Aged; Comparative Study; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't.

Author: Maly RC, Frank JC, Marshall GN, DiMatteo MR, Reuben DB
Title: Perceived efficacy in patient-physician interactions (PEPPI): validation of an instrument in older persons
Journal: Journal of the American Geriatrics Society
Year: 1998 Jul
Volume: 46
Number: 7
Pages: 889-894
Abstract: OBJECTIVE: To develop and validate a brief instrument--the Perceived Efficacy in Patient-Physician Interactions Questionnaire (PEPPI)--to measure older patients' self-efficacy in obtaining medical information and attention to their medical concerns from physicians. DESIGN: Two consecutive validation surveys. SETTING: Eleven senior multipurpose centers in Los Angeles County California. POPULATION: A convenience sample of 163 community-dwelling older persons (Survey 1: n=59, mean age=77.1 years, 76.3% female; Survey 2: n=104, mean age=77.4 years, 57.7% female). MEASURES: The 10-item PEPPI, subscales of the Patient Satisfaction Questionnaire, the Medical Outcomes Study (MOS) Coping Scale, the Mastery Scale, and global self-reported health and restricted activity days items. RESULTS: The full 10-item and a 5-item short form of PEFPI demonstrated Cronbach's alphas of 0.91 and 0.83, respectively. PEPPI demonstrated discriminant and convergent validity as hypothesized, correlating negatively with avoidant coping (r=-.27, P=.001) and positively with active coping (r=.17, P=.03) and with patient satisfaction with physician interpersonal manner (r=.49, P < .0001) and communication (r=.51, P < .0001) (values from the overall sample). Further, in the second survey, PEPPI correlated positively with self-reported health (r=.42, P < .0001), education (r = .24, P=.01) and self-mastery (r=.29, P=.01) and negatively with restricted activity days (r=-.25, P=.01). PEPPI-5 demonstrated correlations similar in magnitude, direction, and statistical significance. CONCLUSION: In either the 5- or 10-item version, PEPPI is a valid and reliable measure of older patients' perceived self-efficacy in interacting with physicians. This instrument may be useful in measuring the impact of empowerment interventions to increase older patients' personal sense of effectiveness in obtaining needed health care.
Keywords: Subjects: Major Subjects (MeSH): Aging--psychology; Physician-Patient Relations; Questionnaires; Self Concept; Other Subjects (MeSH):; Psychological Tests--statistics & numerical data; Reproducibility of Results; Socioeconomic Factors; California; Limits: Aged; Aged, 80 and over; Female; Human; Male; Support, U.S. Gov't, P.H.S.

Author: Morrow D
Title: Improving consultations between health-care professionals and older clients: implications for pharmacists
Journal: International Journal of Aging and Human Development
Year: 1997
Volume: 44
Number: 1
Pages: 47-72
Abstract: Consultations between pharmacists and many clients are now federally mandated in the United States, but guidelines have not been developed for communication in this context. This article reviews research on communication between clients and health-care professionals in order to help develop recommendations for consultations between pharmacists and older clients. The review is organized around a collaborative approach to health communication, which identifies strategies by which speakers and listeners work together to achieve mutually defined goals.

This approach is used to analyze cognitive processes underlying communication during pharmacist consultations. This review suggests that miscommunication often reflects a breakdown in collaboration between health-care professional and clients. Recommendations are developed to improve collaboration, including suggestions for initiating consultations, presenting easy to understand messages, and monitoring to ensure that the messages are mutually understood. Most important, successful collaboration requires tailoring strategies to individual clients rather than basing communication on general assumptions about clients.

Keywords: Communication; Health Personnel; Referral and Consultation; Other Subjects (MeSH): Patient Compliance; Pharmacists; Professional-Patient Relations; United States; Limits: Aged; Human; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Nussbaum JF
Title: Physician-older patient communication during the transition from independence to dependence
Journal: Journal - Oklahoma State Medical Association
Year: 1998 Dec
Volume: 91
Number: 9
Pages: 504-508
Abstract: This article reviews recent research regarding the communication between physicians and their older patients who are passing from independence to dependence. Major findings from these studies are summarized with a discussion of how the context of the medical encounter, the physical, cognitive and language changes related to age, the amount of time permitted for a medical encounter, the managed care environment, and the presence of a companion can affect competent communication between a physician and an older adult. The article concludes with a comment about the need to educate current and future physicians on the complexity of communicating effectively with older patients.
Keywords: Communication; Physician-Patient Relations; Aged; Limits: Human.

Author: Olweny CL
Title: Effective communication with cancer patients. The use of analogies--a suggested approach
Journal: Annals of the New York Academy of Sciences
Year: 1997 Feb 20
Volume: 809
Number:
Pages: 179-187
Abstract: This article presents three functions of medical communication: 1) the interchange of information between the doctor and patient, 2) engagement of feelings, which enhances the therapeutic benefit of the doctor-patient-relationship, and 3) increased confidence and compliance and suggests analogies as one possible mechanism to communicate and explain cancer related treatment and associated concerns to patients.
Keywords: Communication; Neoplasms; Physician-Patient Relations; Symbolism; Other Subjects (MeSH): Antineoplastic Agents--adverse effects; Attitude to Death; Attitude to Health; Chemotherapy, Adjuvant; Decision Making; Neoplasm Staging; Neoplasms--diagnosis; Neoplasms--pathology; Neoplasms--psychology; Neoplasms--surgery; Neoplasms--therapy; Patient Care Planning; Patient Participation; Radiotherapy, Adjuvant; Referral and Consultation; Remission Induction; Treatment Outcome; Truth Disclosure; Limits: Human.

Author: Phillips RS, Wenger NS, Teno J, Oye RK, Youngner S, Califf R, Layde P, Desbiens N, Connors AF Jr., Lynn J
Title: Choices of seriously ill patients about cardiopulmonary resuscitation: correlates and outcomes. SUPPORT Investigators. Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments
Journal: American Journal of Medicine.
Year: 1996 Feb
Volume: 100

Number: 2
Pages: 128-137
Abstract: PURPOSE: For patients hospitalized with serious illnesses, we identified factors associated with a stated preference to forgo cardiopulmonary resuscitation (CPR), examined physician-patient communication about these issues, and determined the relationship of patients' preferences to intensity of care and survival. PATIENTS AND METHODS: The study was a cross-sectional evaluation of patient preferences. The setting was five geographically diverse academic acute-care medical centers participating in the SUPPORT (Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments) project. Study participants were hospitalized patients > or = 18 years of age with 1 of 9 serious illnesses who were interviewed between days 3 and 6 after qualifying for the study. Using standardized interviews, patients provided information on demographics, preferences for CPR and other treatments, quality of life, functional status, perceptions of prognosis, and whether the patient had discussed CPR preferences with his or her physician. Data abstracted from the medical record included physiologic measures, therapeutic intensity, whether CPR was provided, and whether there was a do-not-resuscitate order. RESULTS: Of 1,995 eligible patients, 84% were interviewed (mean age 62 years, 58% men, inhospital mortality 7%, 6-month mortality 33%). Of the respondents, 28% did not want CPR. Factors associated independently with not wanting CPR included: hospital site; diagnosis; being older; being more functionally impaired; and patient perception of a worse prognosis. Only 29% of patients had discussed their preferences with their physician; 48% of those who did not want CPR reported such discussions. After adjusting for illness severity and factors associated with CPR preferences, patients not wanting CPR had lower intensity of care; similar inhospital mortality; and higher mortality at 2 and 6 months following study entry. CONCLUSIONS: The diagnosis, patients' perception of the prognosis, and hospital site were significantly associated with patients' resuscitation preferences after adjusting for patient demographics, severity of illness, and functional status. The rate of discussing CPR was low even for patients who did not want CPR. Patient preferences not to receive CPR were associated with a small decrease in intensity of care but no difference in hospital survival.
Keywords: Cardiopulmonary Resuscitation; Critical Illness; Decision Making; Other Subjects (MeSH): Communication; Cross-Sectional Studies; Hospital Mortality; Patient Participation; Physician-Patient Relations; Quality of Life; Limits: Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't.

Author: Quirt CF, Mackillop WJ, Ginsburg AD, Sheldon L, Brundage M, Dixon P, Ginsburg L
Title: Do doctors know when their patients don't? A survey of doctor-patient communication in lung cancer
Journal: Lung Cancer
Year: 1997 Aug
Volume: 18
Number: 1
Pages: 1-20
Abstract: OBJECTIVES: a) To determine how much patients with recently diagnosed lung cancer know about their illness and its treatment, and b) to find out if doctors know what their patients know and what they don't. PATIENTS AND METHODS: One hundred patients with recently diagnosed lung cancer, who were undergoing radiotherapy or chemotherapy, were interviewed to determine their view of their diagnosis, the extent of the cancer, the intent of treatment, and the risks and benefits of treatment. Their attending physicians' view were elicited contemporaneously, using a self-administered questionnaire. The principle outcome measure of the study was the level of agreement between the views of the patients and the doctors about the disease, the treatment, and the prognosis. Concordance between doctors' and patients' views was expressed in terms of percentage agreement, and Kappa (kappa). RESULTS: Ninety-nine percent of the patients knew that they had lung cancer. Sixty-four percent (64%) agreed with their doctor about the extent of the disease (kappa = 0.48). Most of those who disagreed underestimated the extent of their cancer. Seventy-two percent (72%) agreed with their doctor about the intent of treatment (kappa = 0.49). Thirty-six percent (36%) agreed with their doctors about their probability of cure, (kappa = 0.17): most of those who disagreed systematically overestimated it. Sixty-eight patients were receiving palliative

treatment. Of these, 56% agreed with their doctor about the probability of symptomatic benefit (kappa = 0.42), but only 14% agreed with their doctor about the probability that the treatment would prolong life (kappa = 0.06). Doctors frequently failed to recognize their patients' misconceptions about the intent of treatment and the prognosis. CONCLUSION: Many patients did not understand their situation well enough to make a truly autonomous treatment decision, and their doctors often failed to recognize this.

Keywords: Communication; Lung Neoplasms--psychology; Physician-Patient Relations; Other Subjects (MeSH): Data Collection; Lung Neoplasms--diagnosis; Lung Neoplasms--therapy; Prognosis; Prospective Studies; Limits: Adult; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't.

Author: Razavi D, Delvaux N
Title: Communication skills and psychological training in oncology
Journal: European Journal of Cancer
Year: 1997 Jul
Volume: 33
Number: Suppl 6
Pages: S15-S21
Abstract: Preserving the best possible quality of life for cancer patients and their families has become a major goal in cancer care. However, the cumulative effect of stressors related to cancer care, many of which involve communicating with patients and relatives, may lead to the development of burnout in staff. Many health care professionals lack the psychosocial knowledge and communications skills needed to identify patients' problems because general professional training focuses on technical care. Teaching strategies known as psychological training programs (PTP) are therefore being developed to help improve health care professionals' sensitivity to communication problems with patients and relatives. Cognitive (e.g. theoretical information), experiential (e.g. case-history discussions), behavioural (e.g. role-playing exercise) and supportive (e.g. stressor identification) training techniques are used to teach the essential skills of good communication, i.e. listening, empathy, response to cues and appropriate use of reassurance. PTP range from one-day courses and residential workshops to full-time 1- or 2-year curricula. However, one of the main obstacles to implementing PTP is skepticism among health care professionals about its usefulness. Research on training effectiveness should therefore be developed to assess the impact of communication skills on quality of care and patients' quality of life.
Keywords: Communication; Medical Oncology—education; Neoplasms—therapy; Quality of Life; Stress, Psychological; Other Subjects (MeSH): Education, Continuing; Health Personnel; Physician-Patient Relations; Limits: Human.

Author: Righetti A, Giorgio G
Title: Factors influencing the communication of the diagnosis to patients who have cancer
Journal: Journal of Cancer Education
Year: 1994
Volume: 9
Number: 1
Pages: 42-45
Abstract: Medical attitudes and behaviors in communicating diagnoses to patients found to have cancer were investigated in a sample of 126 practitioners in Italy. The research airned at analyzing the medical approach to oncology patients and how they were provided information about their cancers and relevant treatments. In particular, psychosocial factors influencing the physician's decision whether or not to inform the patient of the diagnosis were examined. The results showed a significant interaction between the working environment and the practitioner's perception of cancer, which can impinge on the decision whether to provide the patient with information.
Keywords: Attitude of Health Personnel; Communication; Neoplasms--diagnosis; Neoplasms--psychology; Physician-Patient Relations; Other Subjects (MeSH): Anxiety--psychology; Attitude to Health; Emotions; Family; Family Practice; Medical Oncology; Medical Staff, Hospital; Neoplasms--therapy; Italy; Limits: Adult; Aged; Female; Human; Male; Middle Age.

Author: Roter DL, Stewart M, Putnam SM, Lipkin M Jr., Stiles W, Inui TS
Title: Communication patterns of primary care physicians
Journal: Journal of the American Medical Association
Year: 1997 Jan 22-29
Volume: 277
Number: 4
Pages: 350-356
Abstract: OBJECTIVES: To use audiotape analysis to describe communication patterns in primary care, to relate these to ideal relationship types as described in the literature, and to explore the patterns' relationships with physician and patient characteristics and satisfaction. DESIGN: Description of routine communication in primary care based on audiotape analysis and patient and physician exit questionnaires. SETTING: A total of 11 ambulatory clinics and private practices. PARTICIPANTS: The participants were 127 physicians and 537 patients coping with ongoing problems related to disease. MAIN OUTCOMES MEASURES: Roter Interactional Analysis System (RIAS) and patient and physician exit satisfaction questionnaires. RESULTS: Cluster analysis revealed 5 distinct communication patterns: (1) "narrowly biomedical," characterized by closed-ended medical questions and biomedical talk occurring in 32% of visits; (2) "expanded biomedical," like the restricted pattern but with moderate levels of psychosocial discussion occurring in 33% of the visits; (3) "biopsychosocial," reflecting a balance of psychosocial and biomedical topics (20% of the visits); (4) "psychosocial," characterized by psychosocial exchange (8% of visits); and (5) "consumerist," characterized primarily by patient questions and physician information giving (8% of visits). Biomedically focused visits were used more often with more sick, older, and lower income patients by younger, male physicians. Physician satisfaction was lowest in the narrowly biomedical pattern and highest in the consumerist pattern, while patient satisfaction was highest in the psychosocial pattern. CONCLUSIONS: Primary care communication patterns range from narrowly biomedical to consumerist patterns and parallel the ideal forms of patient-physician relationships described in the literature.
Keywords: Communication; Family Practice; Physician-Patient Relations; Other Subjects (MeSH): Analysis of Variance; Cluster Analysis; Patient Satisfaction; Questionnaires; Limits: Human; Support, Non-U.S. Gov't.

Author: Rubin SM, Strull WM, Fialkow MF, Weiss SJ, Lo B
Title: Increasing the completion of the durable power of attorney for health care. A randomized, controlled trial
Journal: Journal of the American Medical Association
Year: 1994 Jan 19
Volume: 271
Number: 3
Pages: 209-212
Abstract: OBJECTIVE--Wider use of written advance directives may prevent many ethical dilemmas about life-sustaining interventions for patients who have lost decision-making capacity. We investigated whether a simple educational intervention increased patient completion of the durable power of attorney for health care. DESIGN--A randomized, controlled trial. SETTING--A health maintenance organization. SUBJECTS--All patients aged 65 years and older and discharged from a hospital between January 1991 and May 1991 (n = 1101) were randomized to either an intervention group or a control group. INTERVENTION--An educational pamphlet on the durable power of attorney for health care and a durable power of attorney for health care form were mailed to all patients in the intervention group. The control group received conventional care only. MAIN OUTCOME MEASURE--Completion of the durable power of attorney for health care form. RESULTS--There were no significant baseline differences between the intervention group and the control group. Following our intervention, 18.5% of the subjects in the experimental group completed a durable power of attorney for health care form, compared with 0.4% of the control group ($P < .0001$). CONCLUSIONS--A simple educational intervention significantly increased the completion of the durable power of attorney for health care. Our findings should stimulate further efforts to empower patients to make informed

decisions about their health care.

Keywords: Health Maintenance Organizations--organization &; administration; Living Wills--statistics & numerical data; Patient Education; Other Subjects (MeSH): Advance Directives--statistics & numerical data; Forms and Records Control; Pamphlets; Patient Discharge; San Francisco; Limits: Aged; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Rutter DR, Iconomou G, Quine L
Title: Doctor-patient communication and outcome in cancer patients: an intervention
Journal: Psychology & Health
Year: 1996 Nov
Volume: 12
Number: 1
Pages: 57-71
Abstract: In Study 1, 73 cancer patients were followed for 12 mo after diagnosis to examine whether the way doctors communicate information to patients in a pre-treatment consultation affects outcome. Patients' expectations of their pre-treatment consultation, their perceptions of the doctor's communication method, and ratings of the doctor's performance were measured. No reliable associations with coping or quality of life were found 6-8 wks after the consultation. Satisfaction with the consultation was predicted by expectations and ratings, however, but it too was unrelated to subsequent outcome. Study 2 examined whether it was possible to reduce anxiety and depression by improving communication. Specialist oncologists in the experimental condition were given a workshop designed to improve their communication with patients, and a booklet about treatment was prepared for them to give to patients as a part of the pre-treatment consultation. Doctors proceeded as usual in the control condition. 36 patients (mean age 57 yrs) served as Ss. Patients receiving the intervention reported feeling less depressed and more in control.
Keywords: *Client Attitudes *Neoplasms *Quality Of Life *Professional Consultation *Therapeutic Processes/ <De2> Adulthood Client Satisfaction Follow-up Studies Major Depression Physicians Medical Treatment (General) Health Attitudes Coping Behavior Anxiety/ Oncologist Communication Training In Pretreatment Consultation/ Consultation Satisfaction & Anxiety & Depression & Coping & Quality Of Life & Sense Of Control/ Cancer Patients/ Greece/ Follow-up Study.

Author: Scherz JW, Edwards HT, Kallail KJ
Title: Communicative effectiveness of doctor-patient interactions
Journal: Health Communication
Year: 1995
Volume: 7
Number: 2
Pages: 163-177
Abstract: Used the pragmatic protocol developed by C. A. Pritting and D. M. Kirchner (see PA, Vol 75:31634) to examine qualitatively the communicative effectiveness of doctor-patient interactions qualitatively. 14 family practice residents and 70 of their patients (5 for each resident) were rated using the protocol, which was designed to evaluate 30 communicative behaviors simultaneously as either appropriate, inappropriate, or no opportunity to observe. Nearly all of the ratings for the residents and the patients were appropriate (95% for the residents and 93% for the patients). Those behaviors rated inappropriate were analyzed for potential information about the communicative interaction. Not all of the 30 behaviors evaluated by the Pritting pragmatic protocol were shown to be useful in the evaluation of communicative effectiveness in this context.
Keywords: *Therapeutic Processes/ Adulthood Patients Physicians/ Pragmatic Protocol/ Assessment Of Communicative Effectiveness/ Doctors & Patients.

Author: Sharf BF
Title: Reading the vital signs: research in health care communication

Journal: Communication Monographs
Year: 1993 Mar
Volume: 60
Number: 1
Pages: 35-41
Abstract: Discusses areas and methods of research in health care communication that will enhance the quality of health care while simultaneously increasing the understanding of the nature of human communication. Emphasis is placed on context, complexity, and consequences as ways of thinking about how research in this area should be evolving into the 21st century. Relating to content, it is insufficient to examine clinical communication as if all doctors, patients, and settings are essentially comparable. In terms of complexity, inquiries that focus on nurses, pharmacists, or other nonphysician practitioners have been quite limited in comparison with the literature on doctor-patient relationships. Communication research could be improved by shifting focus from provider skills to those of patients.
Keywords: *Health Care Services *Interpersonal Communication *Therapeutic Processes/ Research On Context & Complexity & Consequences Of Health Care Communication.

Author: Sheer VC, Cline RJ
Title: Testing a model of perceived information adequacy and uncertainty reduction in physician-patient interactions
Journal: Journal of Applied Communication Research
Year: 1995 Feb
Volume: 23
Number: 1
Pages: 44-59
Abstract: Proposes and tests a model of perceived information adequacy and uncertainty reduction in doctor-patient interactions, guided by information theory (C. E. Shannon and W. Weaver, 1948) and uncertainty reduction theory (C. R. Berger and R. J. Calabrese, 1975). 56 cardiac patients (aged 20-86 yrs) completed questionnaires before and after their clinic visits. Results confirm the existence of illness uncertainty, relational uncertainty, and medical setting uncertainty as perceptually related but relatively distinct constructs. Results also indicate that perceived information adequacy is a valid predictor of postvisit uncertainty. The model generally was supported. In addition, evidence was provided for the reliability and validity of scales that were developed to measure sources of uncertainty and perceptions of information adequacy in doctor-patient interactions.
Keywords: *Information Exchange *Models *Uncertainty *Therapeutic Processes/ Adulthood Very Old Physicians Aged Heart Disorders/ Support For Model Relating Perceived Information Adequacy To Uncertainty Reduction In Interactions With Doctor/ 20-86 Yr Old Cardiac Patients

Author: Shore AD, Rubin HR, Haisfield ME, McGuire DB
Title: Health care providers' and cancer patients' preferences regarding disclosure of information about advance directives
Journal: Journal of Psychosocial Oncology
Year: 1993
Volume: 11
Number: 4
Pages: 39-53
Abstract: Examined how health care providers and patients believe information about advance directives (e.g., living wills) should be presented, noting that the Patient Self-Determination Act (PSDA) of 1990 requires hospitals to tell patients about their right to complete an advance directive. When focus groups of 15 providers and 8 patients from a regional cancer center were held, nurses expressed more comfort with the requirements of the PSDA than did physicians, who were particularly concerned about the effect of the PSDA on their ability to treat patients in critical situations. Although patients were in favor of advance directives, they felt that admission was not the best time to learn about them. Testing the effectiveness of distributing written information to patients before admission and using specially trained personnel to discuss advance directives may be worthwhile.

Keywords: *Advance Directives *Client Attitudes *Health Personnel Attitudes *Neoplasms/ Adulthood Patients Health Personnel/ Preferences Concerning Disclosure Of Information About Advance Directives/ Cancer Patients Vs Health Care Providers.

Author: Simonds SK
Title: Communication theory and the search for effective feedback
Journal: Journal of Human Hypertension
Year: 1995 Jan
Volume: 9
Number: 1
Pages: 5-10
Abstract: If messages transmitted to the public, patients and health professionals could be assured of being received, understood and acted on as intended by the senders of messages, there would be little need to focus on communications and feedback. That the physician's office, the healthcare system and the community are littered with messages that 'never got through' attests to the problem of ineffective communications and the absence of effective feedback. Communication theorists, health psychologists and thoughtful health professionals, particularly those working in community hypertension programmes, have developed approaches that improve the probabilities of 'getting the message through'. Theory-based communications with built-in feedback and 'feed-forward' enhance the probabilities of success considerably. This presentation explores these problems using the SMCR model of communication. Differences between linear models and transactional models are discussed. On the assumption that the health message environments of the future will be increasingly complex with highly differentiated target audiences in a rapid paced computer and electronically driven world, 'getting the message through' will become an even greater challenge than in the recent past. Specific steps to change communication approaches in this setting are proposed.
Keywords: Communication; Feedback; Information Theory; Other Subjects (MeSH): Communication Barriers; Community Health Planning; Medical Informatics; Psycholinguistics; Public Relations; Limits: Human.

Author: Stewart MA
Title: Effective physician -patient communication and health outcomes: a review
Journal: Canadian Medical Association Journal
Year: 1995 May 1
Volume: 152
Number: 9
Pages: 1423-1433
Abstract: OBJECTIVE: To ascertain whether the quality of physician-patient communication makes a significant difference to patient health outcomes. DATA SOURCES: The MEDLINE database was searched for articles published from 1983 to 1993 using "physician-patient relations" as the primary medical subject heading. Several bibliographies and conference proceedings were also reviewed. STUDY SELECTION: Randomized controlled trials (RCTs) and analytic studies of physician-patient communication in which patient health was an outcome variable. DATA EXTRACTION: The following information was recorded about each study: sample size, patient characteristics, clinical setting, elements of communication assessed, patient outcomes measured, and direction and significance of any association found between aspects of communication and patient outcomes. DATA SYNTHESIS: Of the 21 studies that met the final criteria for review, 16 reported positive results, 4 reported negative (i.e., nonsignificant) results, and 1 was inconclusive. The quality of communication both in the history-taking segment of the visit and during discussion of the management plan was found to influence patient health outcomes. The outcomes affected were, in descending order of frequency, emotional health, symptom resolution, function, physiologic measures (i.e., blood pressure and blood sugar level) and pain control. CONCLUSIONS: Most of the studies reviewed demonstrated a correlation between effective physician-patient communication and improved patient health outcomes. The components of effective communication identified by these studies can be used as the basis both for curriculum development in medical education and for patient education programs. Future research should focus on evaluating such educational programs.

Keywords: Communication; Outcome Assessment (Health Care); Physician-Patient Relations; Other Subjects (MeSH): Data Collection--methods; Internal-External Control; Medical History Taking; Randomized Controlled Trials; Limits: Human; Support, Non-U.S. Gov't.

Author: Tattersall MH, Butow PN, Griffin AM, Dunn SM
Title: The take-home message: patients prefer consultation audiotapes to summary letters
Journal: Journal of Clinical Oncology
Year: 1994 Jun
Volume: 12
Number: 6
Pages: 1305-1311
Abstract: PURPOSE: Despite reports of poor patient understanding and recall after cancer consultations, few doctors provide communication aids. We conducted a randomized trial comparing an audiotape of the consultation versus individualized summary letters to patients after their first consultation with a medical oncologist. METHODS: One hundred eighty-two cancer patients were randomized to receive either (1) the audiotape followed 7 to 10 days later by the letter or (2) the letter followed by the audiotape. Outcome measures included patient recall, anxiety and depression, satisfaction with and use of the communication aids, and patient preferences for six communication options. Demographic and disease variables and information and involvement preferences were documented. RESULTS: Eighty percent of patients wanted all information and 72% wanted to participate in treatment decisions. Patients listened to the tape on average 2.3 times and read the letter 2.8 times over 4 weeks, and 90% showed the tape or letter to a friend, relative, or doctor. Satisfaction with the tape and letter were uniformly high and they did not differentially affect recall, anxiety, or depression. When asked to rank six communication options, 46% of patients gave the highest rank to the tape and 21% to the letter. CONCLUSION: Patients use audiotapes of their cancer consultation and individualized letters to review the information given and communicate information to relatives and friends. They prefer audiotapes to letters. Clinicians should consider installing audiotape-recording facilities that could be used to tape new-patient consultations.
Keywords: Correspondence; Neoplasms--psychology; Patient Education; Videotape Recording; Other Subjects (MeSH): Anxiety--etiology; Depression--etiology; Medical Oncology; Patient Education--methods; Patient Satisfaction; Single-Blind Method; Limits: Adult; Aged; Comparative Study; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't.

Author: Todd C, Still A
Title: General practitioners' strategies and tactics of communication with the terminally ill
Journal: Family Practice
Year: 1993 Sep
Volume: 10
Number: 3
Pages: 268-276
Abstract: Interviews with 22 randomly selected general practitioners (GPs) investigated their communication with terminally ill patients. In interview analysis a conceptual distinction was drawn between objectives, strategies and tactics. When treating terminal patients, GPs expressed the objectives of keeping the patient comfortable, painfree, happy and maintaining dignity. A strategy is a plan and mode of approaching patients existing over an extended time period. Three strategies were described by GPs for use when interacting with terminally ill patients. These are characterized as 'try to disclose', 'let the patient decide' and 'avoid disclosing'. Tactics refer to behaviours used within a single consultation, as part of a strategy. Six tactics are described: evasion, denial, uncertainty, hints and prompts, euphemism and reassurance. Different strategies imply quite different forms of consultation. Thus to understand a consultation we must place it into the context of the series.
Keywords: Attitude to Death; Communication; Physician-Patient Relations; Physicians, Family--psychology; Terminal Care--psychology; Other Subjects (MeSH): Denial (Psychology); Interviews; Palliative Care; Truth Disclosure; England; Limits: Human; Support, Non-U.S. Gov't.

Author: Tulsky JA, Chesney MA, Lo B
Title: How do medical residents discuss resuscitation with patients?
Journal: Journal of General Internal Medicine
Year: 1995 Aug
Volume: 10
Number: 8
Pages: 436-442
Abstract: To describe how medical residents discuss do-not-resuscitate (DNR) orders with patients. DESIGN: Prospective observational study. SETTING: Inpatient medical wards of one university tertiary care center, one urban city public hospital, and one Veterans Affairs medical center. PARTICIPANTS: Thirty-one medical residents self-selected 31 of their English-speaking, competent patients, with whom they had DNR discussions. MEASUREMENTS: Three independent observers rated audiotaped discussions about DNR orders between the medical residents and their patients. Ratings assessed whether the physicians met standard criteria for requesting informed consent (e.g., disclosed the nature, benefits, risks, and outcomes), addressed the patients' values, and attended to the patients' emotional concerns. MAIN RESULTS: The physicians often did not provide essential information about cardiopulmonary resuscitation (CPR). While all the physicians mentioned mechanical ventilation, only 55% mentioned chest compressions and 32% mentioned intensive care. Only 13% of the physicians mentioned the patient's likelihood of survival after CPR, and no physician used a numerical estimate. The discussions lasted a median of 10 minutes and were dominated in speaking time by the physicians. The physicians initiated discussions about the patients' personal values and goals of care in 10% of the cases, and missed opportunities to do so. CONCLUSIONS: Medical ethicists, professional societies, and the public recommend more frequent discussions about DNR orders. Even when housestaff discuss resuscitation with patients, they may not be accomplishing the goal of increasing patient autonomy. Research and education must focus on improving the quality, as well as the quantity, of these discussions.
Keywords: Patients--psychology; Physician-Patient Relations; Physicians--psychology; Resuscitation--psychology; Other Subjects (MeSH): Chi-Square Distribution; Hospitals, Teaching; Interviews--methods; Observer Variation; Patients--statistics & numerical data; Physicians--statistics & numerical data; Prospective Studies; Resuscitation--statistics & numerical data; Resuscitation Orders--psychology; Tape Recording; Limits: Adult; Aged; Female; Human; Male; Middle Age; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Tulsky JA, Chesney MA, Lo B
Title: See one, do one, teach one? House staff experience discussing do-not-resuscitate orders
Journal: Archives of Internal Medicine
Year: 1996 Jun 24
Volume: 156
Number: 12
Pages: 1285-1289
Abstract: BACKGROUND: Medical residents commonly discuss resuscitation decisions with hospitalized patients. Previous studies suggest that the quality of these discussions is poor. OBJECTIVE: To learn about residents' experience with do-not-resuscitate (DNR) discussions and their attitudes toward them. METHODS: Medical house officers on the wards of three teaching hospitals were eligible to participate. A subset had previously audiotaped actual DNR discussions as part of a study that described the quality of discussions. In a self-administered questionnaire, house officers rated their performance conducting a recent DNR discussion, stated their attitudes, and described their experience learning to talk to patients about these issues. RESULTS: One hundred one (88%) of 115 residents responded to the survey. Eighty-six (90%) of 96 stated they had done a good job with the discussion and 78 (77%) of 101 reported feeling comfortable discussing the topic with patients. Ninety-four (94%) of 100 residents said they discuss code status with all seriously ill patients and while on the medical wards they conduct a median of one DNR discussion per week. On average, they had observed four discussions conducted by more senior clinicians. One third of the residents had never been observed talking to patients about DNR decisions and 71% had been observed two or fewer times. CONCLUSIONS: These findings help explain the observations about the quality of DNR discussions. House staff "see" and "do" these discussions, but are not taught through

observation and feedback. We recommend that communication about end-of-life treatment decisions be treated as a medical skill to be taught with the same rigor as other clinical procedures.
Keywords: Internship and Residency; Resuscitation Orders; Other Subjects (MeSH): Clinical Competence; Hospitals, Teaching; Internship and Residency--methods; Questionnaires; Limits: Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Author: Unoh SO
Chapter: Dimensions and techniques of communication: possible application to medical practice.
Book: Topical issues in communication arts.
Year: 1987
Pages: 1-20
Abstract: This chapter deals with the basic concepts, dimensions, and techniques of communication, together with some relevant theoretical issues and illustrative models. The second part discusses the relevance and possible applications of these to medical practice.

Author: Virmani J, Schneiderman LJ, Kaplan RM
Title: Relationship of advance directives to physician-patient communication
Journal: Archives of Internal Medicine
Year: 1994 Apr 25
Volume: 154
Number: 8
Pages: 909-913
Abstract: BACKGROUND: Although advance medical directives, such as living wills and durable powers of attorney for health care, are by themselves imperfect instruments for expressing patients' treatment preferences, a possible benefit of these documents is that they will enhance patient-physician communication, especially when end-of-life treatment decisions have to be made. METHOD: Structured interviews were completed for 115 seriously ill cancer patients and 22 of their physicians. The questions dealt with various aspects of advance directives, including communications between the two parties regarding general and specific treatment wishes. Responses were compared in 37 physician-patient pairs for patients who had executed advance directives and in 31 physician-patient pairs for patients who had not executed advance directives. RESULTS: Physicians were frequently unaware of their patients' advance directives. Although patients with advance directives were marginally more likely than patients without advance directives to report discussions about end-of-life treatment decisions, only 34 (30%) out of the total of 115 patients claimed that they had any discussion of treatment decisions with their physicians. Such discussions tended to be about general life attitudes and feelings rather than specific treatments, such as use of artificial nutrition or ventilation. CONCLUSION: Despite public enthusiasm for the use of advance directives and great efforts to promote them, we found little evidence that these documents are associated with enhanced communication between patients and physicians about end-of-life treatment decisions.
Keywords: Advance Directives--statistics & numerical data; Communication; Physician-Patient Relations; Other Subjects (MeSH): Decision Making; Neoplasms; California; Limits: Aged; Aged, 80 and over; Female; Human; Male; Middle Age; Support, U.S. Gov't, P.H.S.

Author: Weissman DE
Title: Consultation in palliative medicine
Journal: Archives of Internal Medicine
Year: 1997 Apr 14
Volume: 157
Number: 7
Pages: 733-737
Abstract: Palliative medicine is an emerging medical discipline in the United States, modeled after similar efforts in Great Britain, Australia, and Canada. Increasingly, academic medical centers are starting clinical programs in palliative medicine including inpatient consultation services. A

description of the essential components of a palliative medicine consultation is presented, based on the author's experience of more than 600 patient encounters at the Medical College of Wisconsin in Milwaukee. A palliative medicine consultation consists of 6 features: assessment and management of physical symptoms; assisting patients to identify personal goals for end-of-life care; assessment and management of psychological and spiritual needs; assessment of the patient's support system; assessment and communication of estimated prognosis; and assessment of discharge planning issues.
Keywords: Palliative Care; Terminal Care; Other Subjects (MeSH): Patient Discharge; Prognosis; Quality of Life; Referral and Consultation; Social Support; Limits: Human; Support, Non-U.S. Gov't.

Author: Worley K, Henderson S
Title: Speaking of difficult choices: the creation of a drama and dialogue group on end-of-life choices
Journal: Gerontologist
Year: 1995 Jun
Volume: 35
Number: 3
Pages: 412-414
Abstract: The purpose of this project is to relieve the emotional isolation of elders concerned about the manner in which they will die, particularly fears about loss of control. A counselor engaged elders in dialogue exploring nonthreatening ways this could be done. Drama that includes dialogue with the audience was chosen, developed, and performed at their retirement facility and in the wider community. Elders who attend these performances express gratitude and relief at learning they are not alone in their concerns, and for the information about current laws and resources for support.
Keywords: Attitude to Death; Choice Behavior; Frail Elderly--psychology; Psychodrama; Psychotherapy, Group; Terminal Care--psychology; Other Subjects (MeSH): Defense Mechanisms; Wit and Humor; Limits: Aged; Female; Human; Male.

RAND

A Demographic Profile of the Frail Elderly and Over 85 Population in the U.S.

Megan Beckett, MHSA, PhD,
Marjorie Pearson, MSHS, PhD

April 20, 1999

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CHAPTER 1
INTRODUCTION

This report uses published information to provide a national demographic profile of the frail and oldest old in the United States today. It is part of a series of studies on frail populations intended to inform the Health Care Financing Administration's efforts to promote greater awareness among Medicare beneficiaries of their rights and responsibilities and to improve access to and exercise of these rights and responsibilities.

The objective of this demographic report is to help the Health Care Financing Administration (HCFA) identify elderly Medicare beneficiaries made vulnerable by advanced age and/or frailty. Subsequent reports will provide information on the support systems utilized by these Medicare beneficiaries, dominant health issues, and effective communication techniques focusing on this population. An additional report will apply these findings to the challenges specifically presented by *rights and protections* information and recommend strategies for communicating Medicare rights and protections to beneficiaries who are frail and/or 85 years of age or older.

The primary data sources are published reports of the U.S. Censuses, the Current Population Survey, and the Medicare Current Beneficiary Survey. Profiled demographic characteristics include gender, race/ethnicity, foreign birth status, language, marital status, living arrangements, education, poverty status, health insurance coverage, and place of residence. Some of these characteristics are indicators of cultural diversity. Culture influences patterns of communication as well as expectations about and propensity to avail oneself of the services of large organizations, such as Medicare, Social Security, or health care systems. Others are indicators of the resources which people have available to facilitate their communication and exercise of Medicare rights and protections, or barriers to effective communication and exercise of rights. All of these characteristics have possible implications for communication strategies and the effectiveness of such efforts. They may indicate differences in people's need and demand for Medicare rights and protections information, their initiative and approach to seeking such information, their informal and formal social networks, their ability to communicate, or their ability to comprehend or act on various information.

In addition to profiling those who currently are frail or in the oldest segment of the population, this report seeks to identify future trends in the composition of this frail population. We do this in two ways; first, where available, we use projections provided by the U.S. Census Bureau of what the oldest old population will look like in the future. Second, we look at the current 65+ population to project what the 85+ population will be like in 20 years.

Frail Elderly and Over 85 — Demographic Report
RAND
1999

CHAPTER 2
DATA AND METHODS

DATA SOURCES

The Decennial Censuses, Current Population Survey (CPS), and the Medicare Current Beneficiary Survey (MCBS) are the primary sources of data for this report. The Current Population Reports, produced by the U.S. Census Bureau, provide published tabulations of the characteristics of the U.S. population based on Census and CPS data. These reports, and other series of reports produced by the Census Bureau, are available in hardcopy form. Many of the most recent reports and tabulations from the 1990 Census can also be found on the internet. Tabulations of the MCBS data are from the *1994 Health and Health Care of the Medicare Population: Data from the 1994 Medicare Current Beneficiary Survey* published by Westat in 1998, under contract with the HCFA.

Decennial Censuses

The Decennial Censuses are a complete enumeration of the U.S. population. Certain basic demographic and housing questions (for example, race, age, marital status, housing value, or rent) are asked for every individual and housing unit in the United States. More detailed questions about such items as income, occupation, and housing costs, in addition to the basic demographic and housing information, are asked of a sample of individuals and housing units. The sampling unit for the noninstitutionalized population was the housing unit; the sampling unit for the institutionalized population is the individual. These data are weighted to be representative of the full population.

Projections

A number of tables in this report provide projections of the oldest old population for up to 50 years in the future. These projections are computed by the Census Bureau based on a cohort-component model. The cohort component model assumes that the number of persons of a given age and sex who will be alive in the population in any one year is the number in the population one year earlier and one year younger minus any deaths and plus or minus any migrants (Pollard, Yusuf, and Pollard, 1990). The Census Bureau makes these assumptions for each single year birth cohort by sex, race (white; African-American; American Indian, Eskimo, and Aleut; and Asian and Pacific Islander) and Hispanic origin (Hispanic or non-Hispanic). (For more detail, consult U.S. Bureau of the Census, 1996). Projections in the far future are less accurate than projections in the near future because the effects of inaccurate assumptions of mortality and migration rates compound over time. The Census Bureau prepares three sets of projections: low, medium, and high. All projections in this report are based on the medium series.

Published Census data used in this report are derived primarily from Current Population Reports series P-20, P-25, PE-61, and PPL-92 and Census Summary Tape File 3 (STF3). Many of these tables are available online (Census home page is http://www.census.gov/).

Where applicable, we refer to the NAPCA Demographic Profile that used primary analysis of the 1990 Census Public Use Micro-data (PUMS) to investigate subgroup variation of the characteristics of specific Asian and Pacific Islander (API) groups residing in the Pacific Northwest. Their findings are used to highlight likely heterogeneity in the distribution of characteristics within the API categorization as available in the tables produced by the Census Bureau and HCFA.

Current Population Survey (CPS)

The Bureau of the Census conducts the CPS every month. It primarily collects labor force data about the noninstitutionalized population. Each month, supplemental questions are included. For example, the March CPS asks additional questions about educational attainment.

The CPS sample is selected from the most recently available Decennial Census files and is continually updated to account for new household construction. About 60,000 households are eligible to be interviewed each round, with approximately 2,600 households not responding.
The CPS data are weighted to independent estimates of the civilian noninstitutionalized population by age, sex, race and Hispanic/non-Hispanic categories based on estimates established by the Decennial Censuses.

The figures reproduced for this report are chiefly derived from published Current Population Reports (series P-20 and P-25). Most recent figures are available online (see Census home page http://www.census.gov).

Medicare Current Beneficiary Survey (MCBS)

Based on HCFA estimates (OPS, HCFA 1998) approximately 97% of older Americans are insured by Medicare. In other words, about 97% of the population covered by the census and CPS are Medicare enrollees. The MCBS data, on the other hand, are 100% Medicare enrollees. The MCBS is a continuous, multipurpose survey of a nationally representative sample of the aged and disabled persons sponsored by the Health Care Financing Administration. In 1994, the sample included approximately 18,000 Medicare non-institutionalized and institutionalized beneficiaries. The MCBS is a longitudinal survey. Each sample person is interviewed three times a year, over four years, regardless of whether he resides in the community or in an institution. The MCBS asks comprehensive questions about the health status, health care utilization, health insurance coverage, and satisfaction with care information of Medicare beneficiaries. (For more detail on the MCBS, consult Adler, 1994).

Beneficiaries were selected by systematic random sampling within age strata. Sampling rates varied by age (0-44, 45-64, 65-69,70-74, 75-79, 80-84, and 85 or over) in order to overrepresent the disabled (under 65 years of age) and the oldest-old. All figures presented in this table are weighted to reflect probability of selection in the MCBS sample.

LIMITATIONS OF THESE DATA

Published tables of Census and MCBS data which provide age-specific information do not separate ethnic/racial groups into finer categories -- i.e., all APIs, for example, are grouped together rather than presenting specific results for each subgroup (e.g., Chinese, Korean, Vietnamese, etc.) within this category. Published MCBS tables limit age-specific data to the racial/ethnic groupings of white, non-Hispanic; African-American, non-Hispanic; and Hispanic. The reason published tables fail to disaggregate beyond this level include inadequate sample sizes (particularly among oldest old population) in the various age-specific cells and constraints on the size of the table. This report consistently includes every grouping available in the published sources. We recognize there may be substantial heterogeneity of characteristics within these finer groups and, where possible, we illustrate such heterogeneity within the API racial category using the NAPCA Demographic Profile.

MAJOR DEFINITIONS

The description of the vulnerable population in this report is intended to be restricted to the "oldest old" (defined as persons 85 and over) or to the frail elderly (variously defined as persons aged 65 and over with functional limitations or other health problems or limitations). However, Census and CPS published tabulations do not always disaggregate down to that fine of age categories so the oldest old age category is sometimes extended to include the 75 and over or 65 and over. Table titles always contain a definition of the population under consideration. Although the 1990 Census introduced a small set of physical impairment questions, all descriptions of the frail elderly are based on the MCBS, since the MCBS obtained more detailed health information.

Frailty is defined in terms of physical and/or cognitive impairments. While the published MCBS tabulations do not group Medicare beneficiaries by frailty per se, they do present data by various potential indicators of frailty. In particular, information is provided on beneficiaries with functional limitations, upper extremity limitations, mobility limitations, and social activity limitations. Other available indicators of frailty include measures of disease burden (chronic illness, selected diseases or conditions, and mental disorder) and residence in a long-term care facility. More specific definitions of these indicators are provided below. We describe the numbers and percents of elderly beneficiaries (those 65-84 years of age and those 85 years and older) with each of these indicators of frailty. Further characterizations of the frail elderly use the functional limitation categorization, one of the broader definitions.

Frailty Markers

Each of these frailty markers are based on those in Olin and Liu's (1998) analysis of the 1994 MCBS data.

Mobility limitation. Having a little, some, or a lot of difficulty, or unable to walk a quarter of a mile.

Functional limitations. Reports any difficulty performing any ADL or IADL. ADLs (Activities of daily living) are related to personal care. They include bathing/showering, getting in and out of bed or a chair, using the toilet and eating. IADLs (Instrumental activities of daily living) are activities related to independent living. The include preparing meals, managing money, shopping, performing housework, and using a telephone. Persons report any difficulty with any ADL or IADL task is coded 'ADL/IADL present.'

Upper extremity limitation. Any difficulty reaching or extending arms above shoulder level, or any difficulty writing or handling and grasping small objects.

Social activity limitation. Respondent reports that health has limited her social life in the past month.

Chronic conditions. They include heart disease, hypertension, diabetes, arthritis, osteoporosis, broken hip, pulmonary disease, stroke, Parkinson's disease, and urinary incontinence.

CHAPTER 3
SOCIO-DEMOGRAPHICS

Overview

This report examines the recent past, current, and future socio-demographic characteristics of the oldest old and frail elderly in the United States. The primary focus is on the oldest old (i.e., persons 85 and over) reflecting the greater amount of published information describing this population, but characterizations of the frail elderly under 85, when available, are provided.

Since tomorrow's frail elderly are today's younger old age cohorts, we also describe the characteristics of the young-old (i.e., persons 65-74) and old-old (75-84 years) throughout most sections of this document. Understanding past and future trends in the composition of the elderly is essential for planning ways to distribute information about Medicare rights and protections to a population least likely to understand these rights and information.

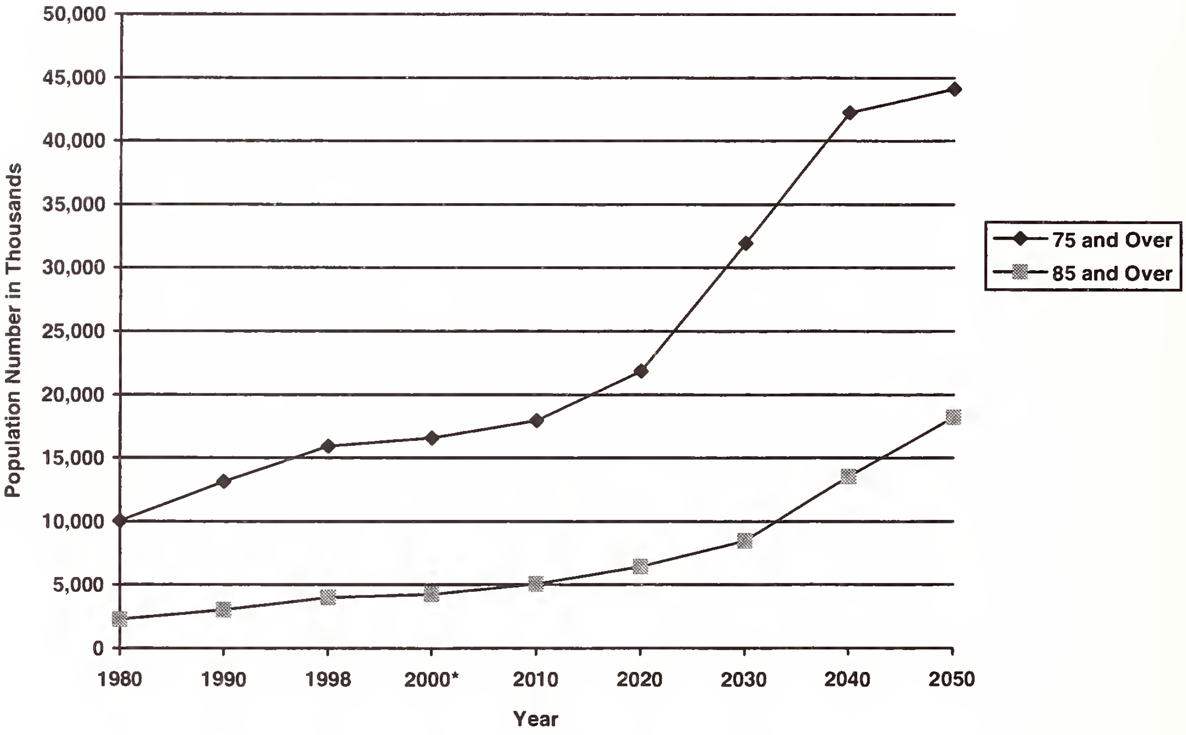
A. THE OLDEST OLD AND FRAIL ELDERLY

Oldest Old Population

Originally, the term oldest old was coined by a gerontologist to refer to persons 75 and over (Neugarten 1974). However, the growing size of the 85 and over population, along with the improved health status of persons 75 and over, has led to the application of this term to persons 85 and over (Suzman et al. 1992).

Numerically, the size of the oldest old population is nontrivial but proportionally small. According to U.S. Census Bureau estimates, the oldest old population made up just 1.5% of the total U.S. population in 1998. Although the percentage is small, the number of oldest old persons is large: 3,997,000 (Table 1). The past several decades have witnessed an explosion in the number of older persons. Since 1980, the number of Americans aged 75 and over increased more than 50%, the population aged 85 and over increased by 76%, and the population aged 90 and over virtually doubled (Table 2). As illustrated in Figure 1, these rapid rates of increase are projected to continue in the coming decades.

Figure 1
POPULATION IN THE OLDER AGES FOR CUMULATIVE AGE GROUPS



* Years 2000-2050 numbers based on middle series estimates of assumptions about fertility, mortality, and immigration.
SOURCES: Siegel 1993 (Table 1.2); U.S. Bureau of the Census, Current Population Reports, series P-25, nos. 952, 1095, 1130; U.S. Bureau of the Census, series PE-61, package 1.

Siegel (1983) identified the major demographic factors contributing to recent (and future) changes in the number of older persons. The rise in the number of persons 75 and over between 1970 and 1980 is the end of a longer-term increase in the older population since 1950 due to the higher number of births at the end of the 19th century and around the turn of the century. These higher number of births were due to the higher immigration rates, not higher fertility rates. The slower rate of growth of the older population between now and 2010 reflects a drop in the number of births in the early part of the 20th century as a result of lower rates of immigration following World War I.

In addition to births and immigration, mortality rates influence the number of people who survive to old age. Historically fertility has exerted the greatest impact on the number of elderly, followed by immigration, and, least importantly, mortality rates. However, since 1950, declining mortality rates in later life have been increasingly important in the rising number of older persons. During the early part of the century, 68% of the increase in the population aged 85-94 could be attributed to increase in births, 11% due to decline in mortality, and 21% due to immigration. Between 1940 and 1980, births accounted for 33% of the increase in number of Americans aged 85-94, decline in mortality accounted for 50% of the increase, and immigration accounted for 17% (Rosenwaike and Dolinsky, 1987).

Table 3 shows years life expectancy at birth (e_o), age 65 (e_{65}), and age 85 (e_{85}) since 1900. Between 1900 and 1950, life expectancy at birth increased for men and women. The average American gained almost 20 years in life expectancy at birth (1900 e_o = 47.3; 1950 e_o=68.2 years). At thc same, there was only a two year (1900 e_{65} = 11.9; 1950 e_{65}=13.9 years) increase in life expectancy at age 65, suggesting that most of gains in total life expectancy occurred earlier in life. Between 1950 and 1996, e_o increased 7.9 years (76.1-68.2), with about half as much gain occurring at age 65. In other words, increases in survival in later life are increasingly important in explaining overall life expectancy at birth in the United States.

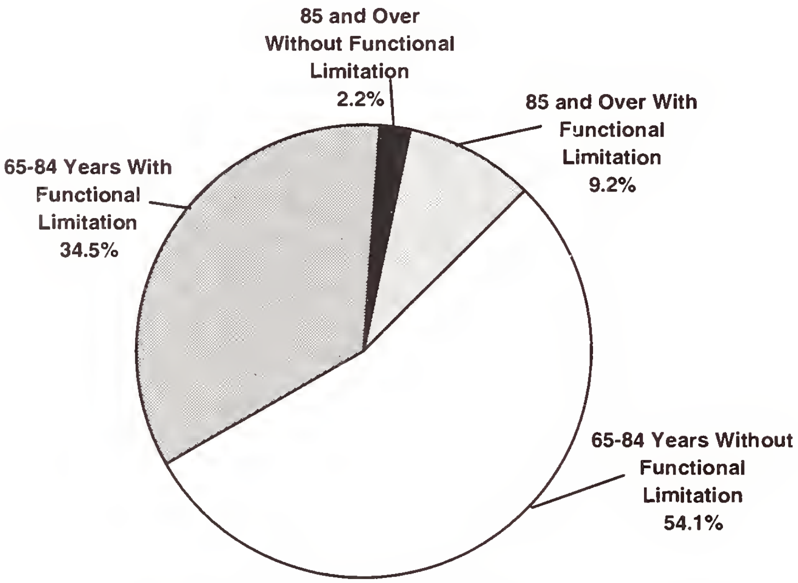
More people are surviving to ages 65 and 85 and they are living longer once they attain these ages than they did in the past. There is a growing consensus in the gerontology literature that people seem to be living healthier lives, as well as living longer. A recent study by RAND researchers concluded that there were large declines in the prevalence of functional limitations (i.e., difficulty seeing, lifting, climbing, and walking) for the period 1984 to 1993 among persons 50 and over, with the largest declines in functional limitations accruing to those ages 80 and over (Freedman and Martin 1998). Over less than a decade, the proportion of those 80 and over who reported difficulty seeing or lifting declined by approximately 10 percentage points; the proportion of persons with difficulty climbing or walking declined by about 6 percentage points. Although the prevalence of disability and functional limitations within the oldest old (and younger old) may be declining, the absolute number of persons with disability in the older ages will continue to increase because of the growing number of these age groups.

Frail Elderly Population

Table 4 presents estimates of frailty in the elderly population, using various definitions of activity impairment and disease burden. It portrays frailty in both the 65-84 year old range and in the oldest old. In all cases, the proportion of people with frailty increases in the oldest old group; the volume of frail elderly is greater in the 65-84 year old group, however, except in the case of long-term care facility residence.

The specific proportion of elderly beneficiaries who might be considered vulnerable due to advanced aged and frailty varies by the frailty indicators used, but the overall picture suggests that a large segment of the elderly are frail and/or 85 years of age or older. Table 5 shows the size of age and frailty groupings, using functional limitation as the frailty indicator. While the oldest old account for 11.4% of the elderly, functional limitation in those aged 65-84 accounts for 34.5% of the elderly. As illustrated in Figure 2a, close to one half of the elderly population are vulnerable when frailty is defined by functional limitation.

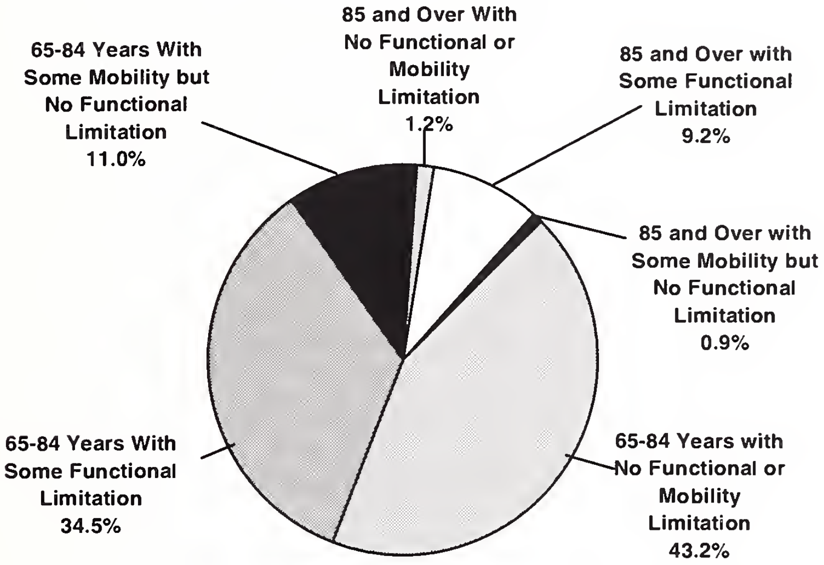
Figure 2a
PERCENT OF MEDICARE BENEFICIARIES WITH AND WITHOUT FUNCTIONAL LIMITATIONS BY AGE



SOURCE: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Table 2.1).

The published tables do not allow us to identify the elderly who are frail by *any* definitions of frailty. People with one indicator, a mental disorder for example, may not experience another, e.g., functional limitation. Reliance on any one indicator, therefore, presents a conservative picture of the vulnerable elderly. Figure 2b illustrates the effect of adding people with mobility limitations but no functional limitations to the numbers of people with some functional limitation. (See Table 6 also.)

Figure 2b
PERCENT OF MEDICARE BENEFICIARIES WITH AND WITHOUT FUNCTIONAL OR MOBILITY LIMITATIONS BY AGE



SOURCE: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Table 2.1).

56% of Medicare beneficiaries 65 years of age or older have either or both a functional and mobility limitation, 1% are 85 years or older with no functional or mobility limitation, and 43% are under 85 with no functional or mobility limitation. That such a higher proportion of the oldest-old is frail according to the presence/absence of functional or mobility limitations attests to the power of age to identify the vulnerable elderly.

In further descriptions of the frail elderly who are under 85, this report will use published data on functional limitations, but it is important to keep in mind that the resulting portrayal of frailty in the population is conservative. It may exclude some of the people with the other important frailty indicators listed in Table 4 that would effect communication efforts. For example, vision and hearing problems may be largely independent of functional status. Also, not all types of cognitive impairment may be included in a measure that relies primarily on functional health measures.

The use of functional limitations as a marker of frailty among persons 65-84 is advantageous in that severity of frailty can be determined. For example, someone who reports difficulty performing an instrumental activity of daily living (IADL) but no difficulty performing any of the more fundamental activities of daily living (ADL) is considered less frail than a person reporting difficulty with any ADL. Table 7 presents the distribution across groups of elderly Medicare beneficiaries in severity of functional limitations by age, for all beneficiaries, and by type of residence (i.e., community or long-term care facility only). As we see over and over again in this profile, age is strongly and negatively associated with health. Only 19.1% of the oldest-old beneficiaries report no functional limitations compared to 61.1% of beneficiaries aged 65-84. Although most younger old do not report any functional limitations, almost 40% do report limitations. Given the large number of persons aged 65-84, the number of frail 65-84 year olds (approximately 11.7 million) is about three times as large as the number of oldest old (approximately 3.9

million). Residence in a long-term care facility is an alternative marker of frailty that correlates extremely well with functional limitations. More than 99% of nursing home residents report functional limitations, with over 70% of residents aged 65-84 and over 80% of 85 and over residents reporting three to five ADLs. However, a definition of frailty based on long-term care residence status would miss 73% and 49% of community residents aged 65-84 and 85 and over respectively, reporting functional limitations. Any definition of vulnerable elderly may include, but should not be restricted to, nursing home residence.

Future Trends In Oldest Old and Frail Elderly Population

Over the next 20 years, the U.S. Census Bureau's middle projections indicate that the number of the oldest old persons will grow rapidly, although proportionately this age group will remain small. The proportion of the U.S. population that is aged 85 and over is projected to reach 4.6% by year 2050, however. Although the oldest old population will not be a substantial proportion of the total U.S. population for several decades, it is important to keep in mind that the Medicare population (i.e., persons 65 and over) itself is aging (Treas and Torechilha, 1995) due in large part to the declining mortality rates noted previously. To give a sense of the rapidity in which the older population is aging, consider the number of American centenarians. In 1990, there were 36,000 centenarians, twice as many as in 1980. By the middle of the next century, the Census Bureau forecasts one million Americans 100 years or older (U.S. Senate Special Committee on Aging, 1991). There will be a projected 18 million persons aged 85 and over (Figure 1).

The number of frail elderly, when defined as functionally impaired, is more difficult to project, but the bulk of the evidence strongly suggests significant increases. On the one hand, there is a small but growing body of evidence suggesting that in the past several decades the proportion of older persons who are functionally impaired is declining. Although the explanation for this decline is unknown (as is the decline in mortality rates, for that matter), it is likely that improved lifestyles, medical and surgical innovations in the treatment of chronic and acute conditions plaguing older persons, and the Medicare program itself which allows access for virtually all older Americans, play important roles. If these trends continue we can anticipate further improvements in longevity and declines in physical impairment. However, the sheer size of the increase in the older, in particular the oldest old will more than offset health declines, resulting in a growing number of frail elderly. About 40% of beneficiaries aged 65-84 years currently report functional or mobility limitations and more than two-thirds report two or more chronic conditions (Table 4). Any gains in overall health status of older adults in the near future will almost assuredly be effected by the projected growth in the 65-84 populations, resulting in a greater burden of frailty.

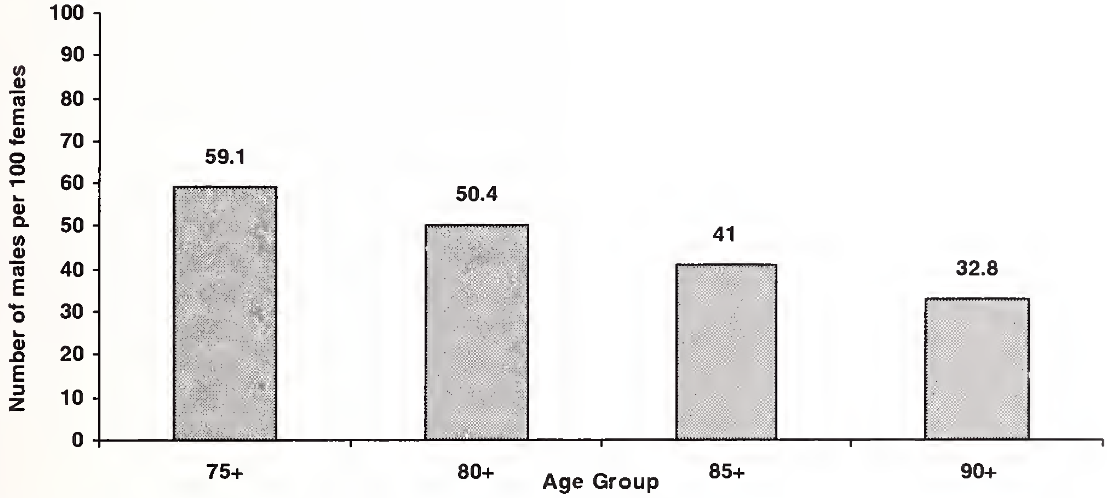
The number of institutionalized elderly will also increase. How much depends on whether the rising socioeconomic status of non-whites and acculturation of immigrants causes the growing ranks of non-white elderly to use institutional care at levels that majority white Americans do.

B. OLDEST OLD AND FRAIL ELDERLY ARE PREDOMINANTLY WOMEN

There may be important differences in the way that Medicare beneficiary information should be targeted to men and women. Women, for example, are less likely to have worked than their male cohorts and are thereby less likely to have been exposed to information about employment-based health insurance or to have received information on Medicare through work colleagues or retirement planners offered through employers. Women who never worked and whose husbands made major household financial decisions, in particular, may be at a disadvantage in making decisions related to Medicare coverage when they become widowed. To the extent that women make up most of the frail elderly population, HCFA may want to target informational campaigns to women at younger ages so that they have the tools to make decisions when they are widowed.

Figure 3 shows the effect of higher male mortality rates; in later life, women outnumber men. The age pattern is such that there is a progressive decline in the number of men per 100 women with advancing age. In 1998, among persons 75 and over, there are 59.1 men per 100 women; by age 95, there are 32.8 men per 100 women. In other words, aging produces a femininazation of the elderly population.

Figure 3
MALES PER 100 FEMALES FOR THE POPULATION 75 AND OVER, BY CUMULATIVE AGE GROUP: 1960-2020



SOURCES: U.S. Bureau of the Census, Current Population Reports, series P-25, nos. 952, 1095, 1130; U.S. Bureau of the Census, series PE-61, package 1.

In addition to outnumbering men, elderly women experience higher rates of functional limitation than elderly men. While 30% of men aged 65-84 are frail by this definition, 46% of women in the same age groups are frail. This reflects the tendency of men to experience onset of more acute, fatal diseases compared to the nonacute, chronic conditions that tend to afflict more women. As shown in Table 8, the result is that two-thirds (67.5%) of the frail elderly aged 65-84 are women.

Future Trends in Predominance of Women in Later Life

Although the predominance of women in later life, particularly oldest old ages, will persist in the coming decades because of lower mortality rates, there is some evidence that this relative female majority may be reversing (Table 9). In the 1980s, the sex difference in life expectancy narrowed (for reasons not entirely clear). This has produced a leveling off in the ratio of women to men in recent years and this ratio may be declining slightly in the 1990s. Projecting life expectancy rates is a very difficult, if not impossible, undertaking. It is too soon to tell if this leveling off will lead to a narrowing of the gap in the proportion of women and men in the future. It is safe to say, however, that for the next 50 years women will continue to outnumber men in late life.

C. ETHNIC AND RACIAL DIVERSITY WITHIN THE OLDEST OLD AND FRAIL ELDERLY

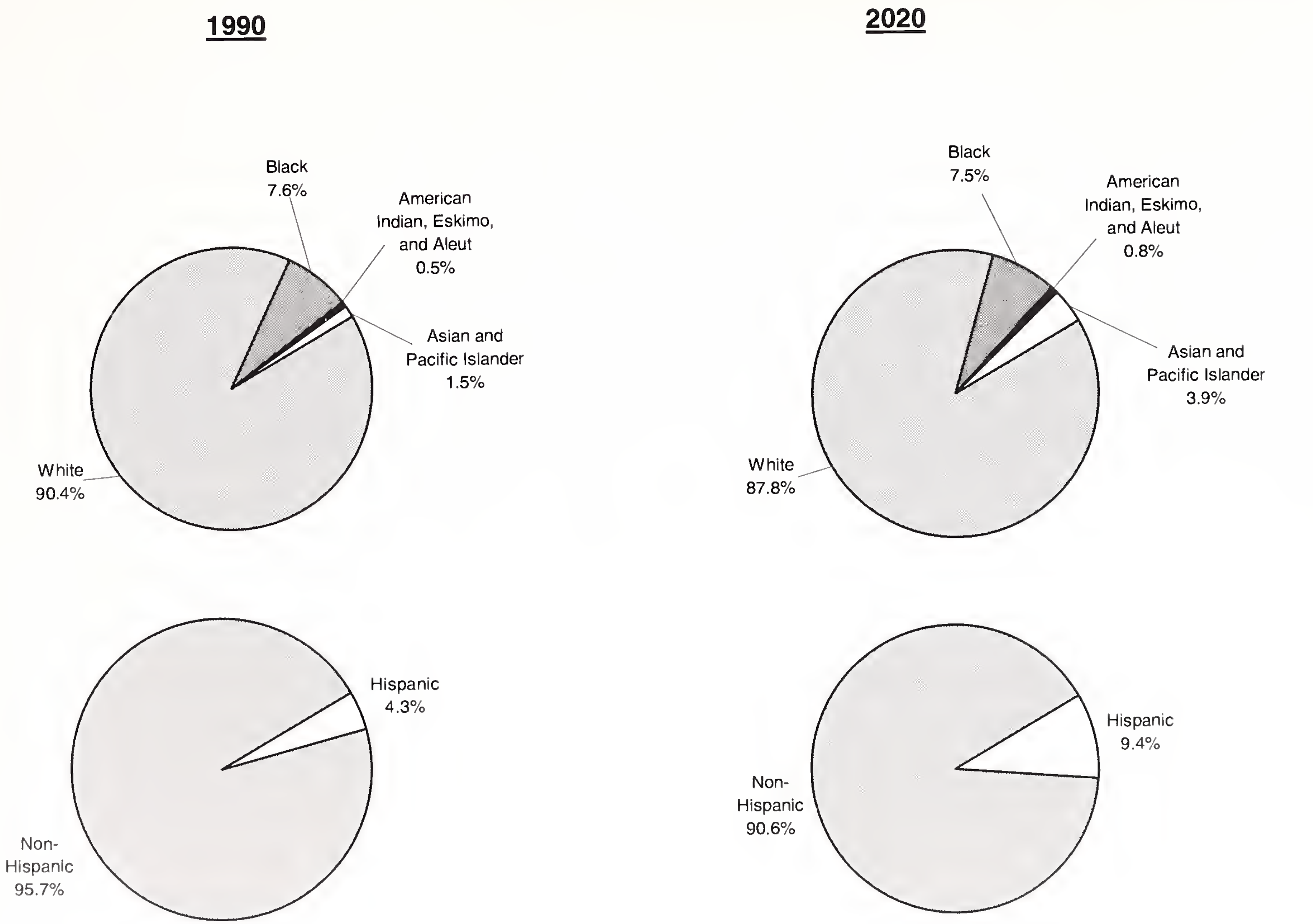
Ethnicity and race influence the ways that people communicate, problem solve, and make choices (for example, utilization of nursing home care). Ethnicity and race may influence attitudes toward and expectations about organizations and health care providers. Ethnic and racial heterogeneity requires service and health care organizations to adapt and modify the way they interact with their constituency.

Currently, the oldest old population is the most homogenous age group with respect to ethnicity and race in the United States. Table 10 provides the 1990 Census estimates and 2020 projections and percentages of oldest old persons by major race and ethnic categories. Figure 4 graphically displays the percentage breakdowns. 90.4 percent of persons aged 85 and over are white; 95.7% percent are non-Hispanic. In contrast, 75.7% of the U.S. population is white, non-Hispanic, 12.3% are African-American, 0.8% are American Indian, Eskimo, or Aleut, 3.0% are API, and 9.0% are Hispanic origin (all races) (Spencer and Hollmann, 1998).

Frail elderly between 65 and 84 appear more heterogeneous. Table 11 shows the ethnic and racial breakdown of functionally limited elderly in this age range. Based on MCBS categories, the table reveals that 82.0% of the frail elderly under 85 are white, non-Hispanic, 10.2% are African-American, non-Hispanic, and 5.5% are Hispanic. This reflects the greater proportion of non-whites in these age groups and the higher prevalence of functional limitations particularly among African-American, non-Hispanics.

Figure 4

ESTIMATED AND PROJECTED POPULATION 85 AND OVER, BY RACE AND ETHNICITY: 1990 AND 2020 (numbers in thousands)



SOURCES: Siegel 1993 (Table 6.2); U.S. Bureau of the Census, Current Population Reports, series P-20, no. 450 (Table 1), and 514 (Table 1).

The relatively crude racial/ethnic groupings used for Census projections masks diversity within racial and ethnic categories. For example, the API classification include ethnic Chinese or Taiwanese, Filipino, Japanese, Korean, Southeast Asians (including Vietnamese, Cambodian, Lao, and Hmong), Pacific Islanders (including Hawaiian, Samoan, Other Polynesian, and Guamanian), and other Asians (Asian Indian, Thai, Indonesian, and Pakistani). NAPCA documents considerable variety across API groups across a range of outcomes, including receipt of Social Security (which is linked with whether they are automatically eligible for Medicare or need to sign up), gender, marital status, citizenship, English-ability, and poverty rates. These differences probably reflect underlying differences in style of communication and expectations about and willingness and ability to negotiate large, complex organizations like Medicare and Medicaid.

The Next 50 Years will Witness Increased Diversity Among the Oldest Old

As can be seen in Table 12, between 1980 and 1990, and 1990 and 1998, smaller racial/ethnic groups experienced the fastest growth rates. The number of Hispanic persons 85 and over increased approximately 88% between 1980 and 1990 and by nearly as much over the next eight years. The number of Asians, Pacific Islanders, and Native Americans aged 85 and over grew by 86.4% between 1980 and 1990, and more than doubled (106.3% increase) between 1990 and 1998. Indeed, the rate of growth was substantially greater than the Census Bureau initially projected in 1994 producing an artificial decline between the 1998 estimated and year 2000 projected number of Asians, Pacific Islanders, and Native Americans that is evident in Table 12. As of 1994, the number of oldest old persons in this racial/ethnic category was projected to more than double again between 2000 and 2010. Early indications suggest this is an underestimate of the growth rate.

By 2020, Census projections indicate that the percentage of the oldest old population that is white will decline slightly, while the proportion Asian and Pacific Islander (API) will almost double from 1.5% (1990) to 3.9% (2020), as can be seen in Table 10. An even larger increase will be seen in the proportion of persons 85 and over who are Hispanic, more than doubling from 4.3% in 1990 to 9.4% in 2020. Although the proportion of oldest old population that is African-American will not change, the number of oldest old African-Americans will swell along with the number of the oldest old population in general. In 1990 there were an estimated 303,600 African-American persons aged 85 and over; by 2020, this number is expected to increase by over 50%, to 482,400 (Table 10). The number of oldest old persons who are not in the white majority population will grow quickly and dramatically over the next several decades and ways to effectively communicate rights to these different racial and ethnic groups will have to be identified.

D. FOREIGN-BORN POPULATION

The issue of foreign/born speaks directly to cultural competency. Language barriers, cultural differences in expectations related to and ability to negotiate with a large, complex bureaucracy, and differences in information-seeking patterns combine to make the immigrant population a more difficult one to communicate with than the U.S.-born population.

Table 13 presents the percent of the population that was foreign-born for all races combined, specific races and ethnicity, and by age (65 and over, 85 and over) using estimates from the 1980 and 1990 Censuses, and the 1998 Current Population Survey (65 and over only). In 1990 about 9% of the total 65+ population and 15% of the total 85+ population were foreign-born. African-American and American Indian, Eskimo, and Aleut elderly persons are the least likely to be foreign-born. For both age groups, Asians and Pacific Islanders are most likely to be foreign-born followed by Hispanics. Indeed, the API category is the only one for whom immigration contributed more to population increase in recent years than natural increase (i.e., births minus deaths) (Deardorff, 1998). Between 1990 and 1998, there was a leveling off or slight increase in the proportion foreign-born for the population 65 and over across all racial and ethnic categories with the large exception of non-Hispanics (which showed a slight decline).

Information on the number of foreign-born who are functionally impaired was not provided in the data sources.

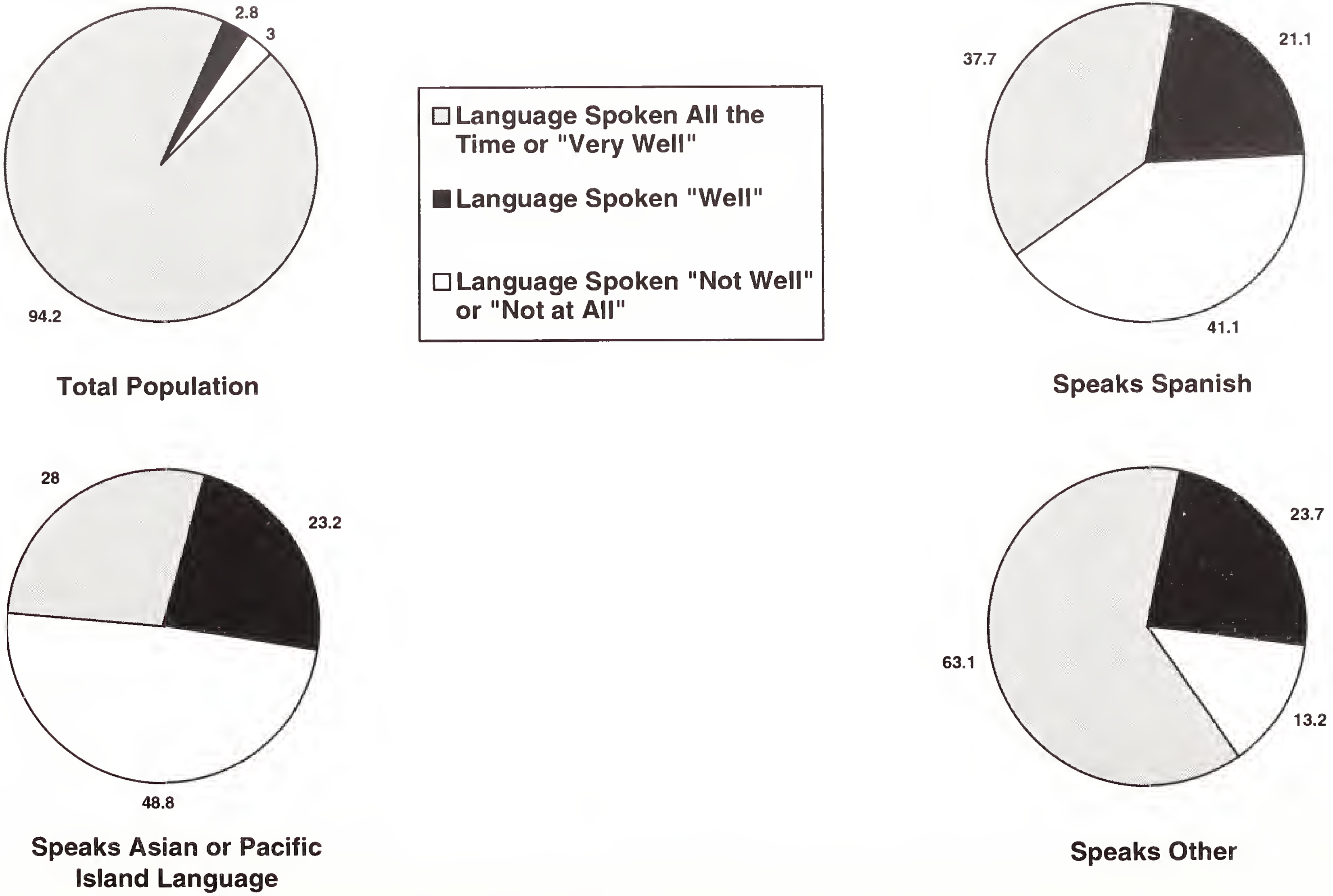
Future Trends in Proportion Oldest Old Foreign-Born

The U.S. Census Bureau projects that net migration will remain constant in the next several decades. However, the progression of API's and Hispanics into the ranks of the oldest old in the next several decades suggest that at the least there will be a shift in the racial composition of the oldest old foreign-born, away from whites of European descent to Asians and Hispanic foreign-borns. Moreover, the family reunification program may lead to a higher immigration of elderly parents among APIs and Hispanics than has been seen for previous generations of immigrants (that did not benefit from the family reunification policy), which could lead to a higher proportion of oldest old who are foreign-born in the future than has been seen in the past.

E. ABILITY TO SPEAK ENGLISH

Older persons who speak a language other than English at home are likely to have difficulty communicating in English. Figure 5 (and Table 14) displays the distribution of ability to speak English for the total population 65 and over and by language of origin (Spanish, Asian or Pacific Island, Other) according to the 1990 Census estimates. Among all oldest old persons, 94.2% speak English "very well;" most of these persons are native-English speakers. Among persons who speak another language at home, there is greater variation in the ability to speak English very well across native language groups. Among Spanish speakers, only 38% speak English "very well." Even fewer (28%) of older persons who speak an API language at home speak English very well or all the time. Most persons (63%) who speak another language at home say they speak English "very well." Nearly half of the oldest old who speak Spanish (41.1%) or an API language (48.8%) at home say they speak English "not well" or not at all, indicating a very high level of inability to communicate in the dominant language for these subgroups. Translation becomes a particular concern for those who speak API languages since there are a number of distinct languages represented.

Figure 5
ABILITY TO SPEAK ENGLISH BY LANGUAGE SPOKEN AT HOME OF POPULATION AGE 65 AND OVER
(number in thousands)



SOURCES: U.S. Bureau of the Census, 1990 Census Summary Tape File 3 (STF3) (database C90STF3C1).

Although someone may not speak English very well, the presence of an adult family member who does speak English, and therefore can interact with English-speakers outside of the home on behalf of the elderly family member, mitigates to some extent the problems associated with poor ability to speak English. The last row in Table 14 shows the percentage of the total oldest old population and of the oldest old population by language spoken at home, that is linguistically isolated. Linguistic isolation means that there is no one in the household aged 14 or over who speaks only English or speaks English "very well." This figure indicates an alarmingly high proportion of nonnative English speakers do not have regular access to a household member who can communicate in English very well: ranging from 37.7% of API language speakers to 20.9% of other language speakers. Overall, 3.2% of the oldest old population is linguistically isolated.

Data on English ability or linguistic isolation among functionally impaired elderly were not included in the data sources.

Future Trends in English-speaking Ability

That the two native language categories who contain the lowest proportion of persons who Speak English "very well," API language and Spanish, are also the groups who are projected to undergo the fastest rates of growth at the older ages, should translate into a higher proportion and greater absolute number of non-English speakers at the older ages in the coming decades.

F. MARITAL STATUS

Change in marital status, from married to divorced or widowed, can mark an important change within the household of the surviving or newly divorced spouse's ability to make household financial decisions if that person was not the financial decision-maker while her spouse was alive. As mentioned already, the potential lack of knowledge with respect to Medicare rights may be particularly acute for women who were never employed, since participation in an employer-sponsored plan may increase awareness of and knowledge about health insurance plans.

Increasing age is associated with higher probability of widowhood, particularly for women. According to 1998 Current Population Survey data, married is the most common marital status (Table 15): about two thirds of men aged 65 and over are married and about half of older women. By age 85, widowhood is the dominant marital status: about 42% of men aged 85 and over are widowed compared with nearly 80% of women. In other words, most of the oldest old are widowed women. In 1998, a relatively small proportion of persons aged 85 and over are divorced and 5-6% of men and women aged 85 and over were never married. Widowhood is associated with a host of other life changes. Many pensions do not pay widows, thus linking many women's economic well-being to their husband's health (Treas and Torrecilha, 1995).

The data sources do not provide the marital status of the frail elderly.

Future Trends in Marital Status

Although the proportion of elderly who are divorced is still small, in the future there will be a higher proportion of divorced men and, especially, women (since women are less likely to remarry following divorce or widowhood) in the older and oldest old population (Uhlenberg, Cooney, and Boyd 1990). Whether divorced women face the same problems widowed women arguably face in understanding and interacting with the Medicare program is unknown. On the one hand, divorced women have had more years as sole decision-maker within their household, thereby possibly making them easier to communicate with about Medicare rights than widowed women. However, divorced women are less likely to own their own homes and do not receive their former husbands' Social Security or pensions. Thus, they tend to be poorer than married or widowed women. Divorced men are less likely to call upon their grown children for support in old age (Cooney and Uhlenberg 1990). These changes in the behaviors and outcomes of divorced older persons may produce different pathways through which Medicare information can be passed on. It may also signal, in the case of women, greater financial vulnerabilities than other marital states, and in men, less access to informal social support (in the form of children) once health declines.

We should note that divorce is concentrated in the U.S. born population; the increased numbers of foreign-born APIs and Spanish origin groups should offset to an unknown extent the increase in divorced persons in the oldest old population as a whole.

G. LIVING ARRANGEMENTS

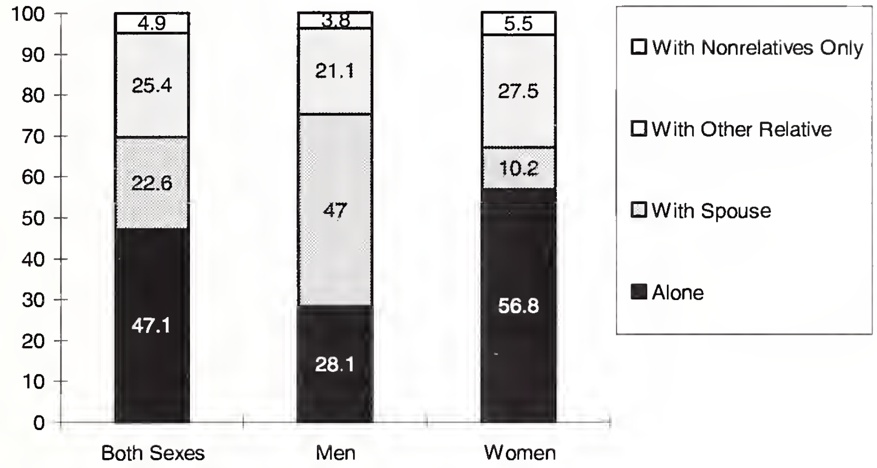
Living arrangements can also provide clues as to ways to communicate information to the frail elderly. For example, persons who are residing with their spouses or with other people can obtain information about Medicare through their fellow household members. Persons who live alone necessarily access information themselves through other channels (or via non-resident family members and friends). Living arrangements are commonly believed to be a characteristic associated with higher vulnerability. The assumption is that persons who live alone are frail and unable to care for themselves in the event of physical or cognitive health decline. However, if one considers that it takes a relatively high level of mental and physical functioning, not to mention financial resources, to maintain a household, this assumption is questionable. Indeed, work by Kramarow (1995) and others suggests that living alone among the elderly is a 20th century phenomenon and has been coincident with the implementation of Social Security and the general rise in income among elderly households. In other words, improved standard of living of the elderly enables older persons to purchase privacy.

Figure 6a shows the distribution of living arrangements for all community residents aged 85 and over, and for older men and women separately. Oldest old men tend to live with their wives (47%), oldest old women live alone (56.8%). Approximately 30% of all persons aged 85 and over are co-residing with someone other than a spouse. Efforts to communicate with the half of the population who lives alone may have to target the elderly person him or herself (or look to formal support networks). Co-residence with other relatives or nonrelatives may present opportunities to funnel Medicare information via these persons.

Figure 6b reveals that the living arrangements of functionally limited community residents more closely resembles that of the oldest-old men than the oldest-old women: 25.0% live alone, 53.3% live with a spouse, and 20.9% resident with child or someone else.

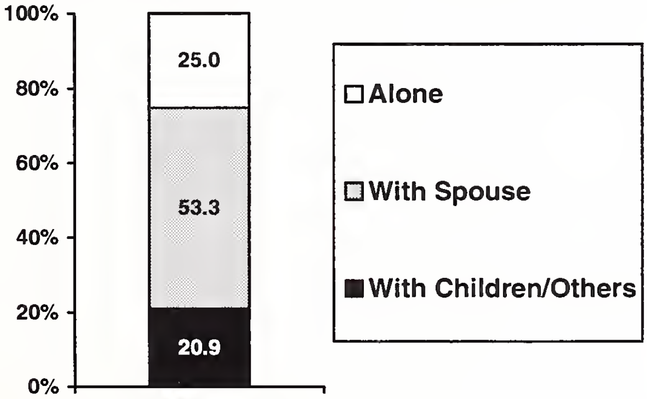
Table 16 shows that 7.3% of the functionally limited elderly 65-84 year old live in long-term care facilities. As can be derived from Table 7, we see that the same is true for 23.3% (900/3,858) of the oldest old. In fact, almost all of the elderly in long-term care facilities are vulnerable by our definition. All (100%) of the oldest-old long-term care residents report functional limitations. The same is true of 23.4% of the oldest old. Institutionalized residence, therefore, is one means of identifying the frail and oldest elderly, but it cannot be relied on exclusively since only a small fraction of the vulnerable elderly live in long-term care facilities and this fraction is not representative of all vulnerable elderly. There are marked differences across racial and ethnic groups in levels of institutionalization, for example. Figure 7 plots the proportion of persons aged 85 and over who are institutionalized, by race and ethnicity, based on 1998 Current Population Survey (the absolute numbers are given in Table 17). Hispanics (10.1%) and Asian and Pacific Islanders (11.1%) are the least likely to be institutionalized and whites the most likely to be institutionalized (21.9%). Non-whites are less likely to rely on institutional care for the aged opting to pursue alternative paths to old age support (Treas and Torrechilha 1995). These racial and ethnic differences might reflect cultural differences in preferences for institutional care or monetary or other types of access (such as knowledge of the Medicaid program)[1] to institutional care. It is unclear whether acculturation of immigrants to the dominant society or improved socioeconomic status of immigrants and other non-whites will lead to an increase in use of institutional care in the future.

Figure 6a
LIVING ARRANGEMENT DISTRIBUTION OF COMMUNITY RESIDENTS AGED 85 AND OVER, BY SEX 1990



SOURCES: U.S. Bureau of the Census, Current Population Reports, series P-20, no. 450 (Table L).

Figure 6b
LIVING ARRANGEMENT DISTRIBUTION OF COMMUNITY RESIDENTS AGED 65-84 WITH SOME FUNCTIONAL LIMITATION, 1990



SOURCE: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Tables 2.5a and 2.5b).

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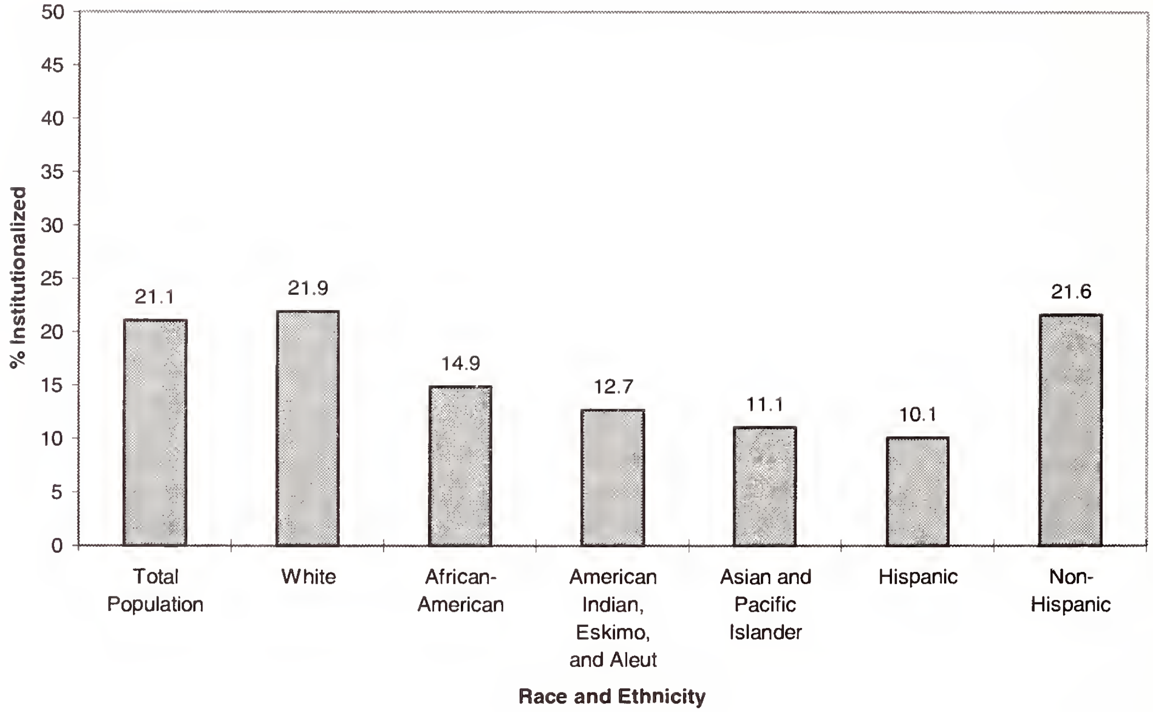
[1] About 40% of Medicaid expenditures were for long-term care (HCFA 1990).

Figure 7
ESTIMATED INSTITUTIONALIZED[2] POPULATION AGE 85 AND OVER BY RACE AND ETHNICITY: 1998



SOURCE: U.S. Bureau of the Census, series PE-61.

Future Trends in Living Arrangements

Table 18 provides living arrangement distribution in 1980 and 1990 for people 65 and over and 85 and over, by sex. The greatest changes over nearly two decades are in the proportion of women aged 85 and over who live alone and the almost parallel decline in proportion of oldest women living with other family members. The reason for this shift is not well known, but the improving functional status of older persons combined with the increased availability of products that enable one to make do with various types of disabilities (such as shower attachments and bars) has enabled a greater proportion of widowed women to continue living independently. One can expect this trend to continue.

The impact of the growing proportion of non-whites and Hispanics on future living arrangements is unclear. It depends on the extent to which these persons are acculturated and adapt the prevalent taste for privacy or keep with traditional patterns of co-residence with adult children.

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[2] Institutionalized population includes persons residing in institutions. At these ages, institutions are primarily nursing homes and mental hospitals, but may also include prisons and jails.

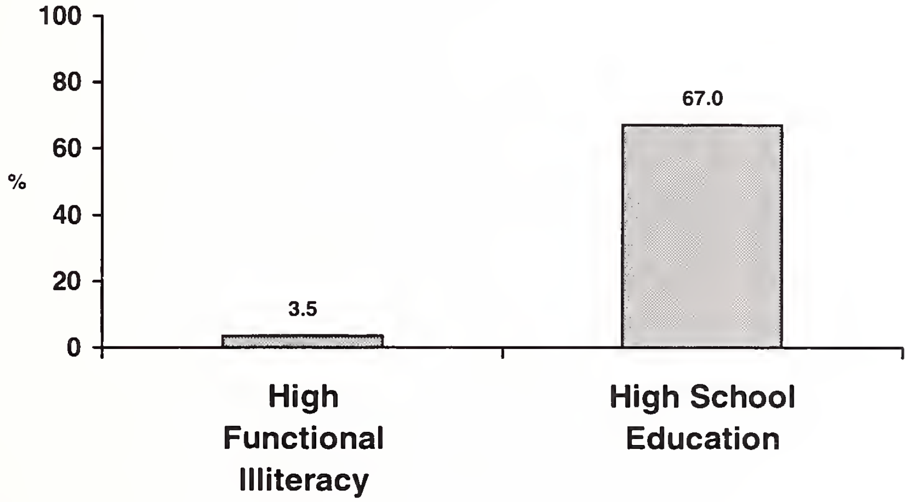
H. SOCIOECONOMIC STATUS

Education

Past education effects the ability of individuals to communicate and to negotiate with large bureaucracies. Functionally illiterate persons may be unable to communicate through the mail without assistance from a family member. Verbally, Medicare and health care workers will need to employ a basic vocabulary to communicate complex issues, such as Medicare rights. Figure 8 uses data from the 1980 Census and the 1998 Current Population Survey to display the proportion of persons aged 65 and over with high functional illiteracy (defined as failure to complete more than four years of education), as well as those with a high school education. In 1998, 3.5% of the elderly population as a whole was functionally illiterate, while 67.0% had completed high school (Tables 19 and 20). Level of education varies by socio-demographic status, such as race and ethnicity, and is changing over time (Table 20). Following a general trend in the United States over the past 50 years (U.S. Bureau of the Census 1992), the proportion of persons with little education declined between 1980 and 1998. There was an approximately 50% decline in level of high functional illiteracy for persons aged 75 and over and for older African-American persons. The proportion of Hispanics with functional illiteracy dropped from 43.8% in 1980 to 29.7% in 1998.

Figure 8

PERCENTAGE OF THE POPULATION AGED 65 AND OVER WITH HIGH FUNCTIONAL ILLITERACY[3] AND HIGH SCHOOL EDUCATION



SOURCES: Siegel 1993 (Table 7.3); U.S. Bureau of the Census, Current Population Reports, series P-20, no. 513 (Table 1).

Table 20 shows the complementary proportion of persons 65 and over who are high school graduates, by age, sex, and race/Spanish origin based on 1998 CPS data. About two-thirds of the entire population aged 65 and over can be assumed to read at or above the high school level, with lower percentages of African-American and Spanish-origin persons being able to read at this level.

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[3] Failure to complete more than four years of education.

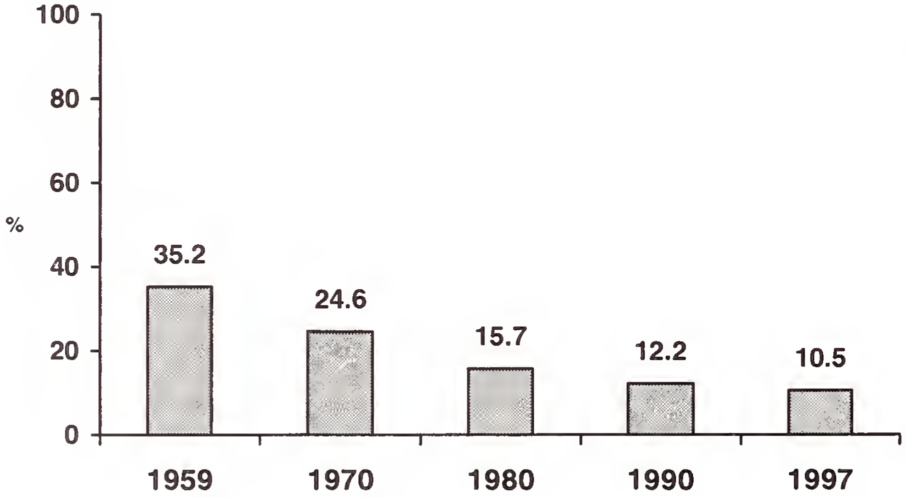
The data sources do not provide comparable figures for oldest old and frail elderly. In 1980, the proportion of functionally illiterate elderly was higher in the oldest old (Table 19). In 1998, high school education levels were somewhat lower in those 75 years and older (Table 20).

Poverty Status

What might poverty have to do with access to information? Poor households are less likely to have access to the full range of mediums through which Medicare information can be distributed. For example, poor households are less likely to have a computer or internet access. They also may be less likely to subscribe to newspapers and magazines or to have cable television.

The economic well-being of the elderly dramatically improved following implementation of the Social Security program in the 1960's. Trend data (Figure 9 and Table 21) based on Current Population Survey show continuing declines in the level of poverty among persons aged 65 and over (U.S. Census Bureau, 1999). In addition to Social Security, these declines reflect higher educational attainment of successive cohorts of elderly persons and their consequent higher lifetime earnings. These declines have been evident across racial and ethnic groups. In the near future, there is every reason to expect this trend to continue for the elderly population as a whole. In 1990, poverty rates among all Americans aged 65-74 was 10.4% and 16.5% for persons aged 75 and over (Table 22). These rates are slightly higher than the poverty rates for the U.S. population aged 18-64 (10.7%), but considerably lower than poverty rates for children under 18 years (20.6%) (U.S. Bureau of the Census, 1999).

Figure 9
PERCENTAGE OF PERSONS 65 AND OVER WHOSE INCOME FALLS BELOW THE POVERTY LINE, BY YEAR



SOURCE: U.S. Bureau of the Census, Historical Poverty Tables-People.

There is considerable diversity among the elderly in levels of poverty. Persons 75 and over are more likely to be in poverty than persons 65 and over, both as a result of cohort differences in educational attainment and lifetime earnings, and because of compositional differences. The 75 and over population contains a higher proportion of widowed women. Consistent with other age groups, older women have a higher poverty rate (13.6%) than older men (6.8%) in 1996 (AARP, 1996). In addition to cohort and compositional differences between the younger and older age groups, there are at least three life-cycle changes in income that can produce age differences in income. With age, a person is more likely to retire, thus generally causing an immediate reduction in income. Some retirement plans provide a pension for a fixed number of years following retirement. Finally, married couples may receive both a pension and Social Security benefits, but upon the death of one of the spouses, the Social Security and/or pension benefits may not accrue to the surviving spouse. There is also a separate issue related to wealth. In the case of wealth, there are clear life-cycle effects such that following retirement, people draw down from their wealth to the extent that their income does not cover all expenses. This is particularly an issue if one spouse requires long-term care which is not covered by Medicare.

There are marked differences by race and education, also reflecting differences in educational attainment, lifetime earnings, and immigration to the United States. Elderly Anglos and APIs have the lowest poverty rates; older African-American, American Indian/Eskimo/Aleut, and Hispanic origin persons reporting approximately twice the rate of poverty as the total older population. NAPCA (1999) was able to document diversity within the API groups in economic well-being, thus indicating that the level of diversity shown here understates the actual diversity across ethnic and racial categories in economic well-being.

Health Insurance

Access to health insurance beyond Medicare is an important marker of the type of information individuals should be receiving. Depending on the state, Medicaid may offer different types of benefits than private insurance plans or Medicare HMOs. For example, coverage of prescription medications will vary across plans. Different plans will have distinct appeal processes.

The distribution and number of persons by health insurance coverage and by age according to the MCBS is shown in Table 23. There are minor differences in the distribution of types of coverage in the two age groups. About one third of persons have individually purchased private insurance and employer-sponsored private insurance each. Approximately 10 percent of the Medicare population has Medicare fee-for-service only or Medicaid. About 8 percent of the population is enrolled in a Medicare HMO.

Future Prospects in Socioeconomic Status

The socioeconomic status of the oldest old, and of older cohorts in general, has improved substantially since 1950, and is projected to continue to do so through the year 2010. Between 1985 and 1990, the percentage of persons aged 65 and over who completed high school was projected to rise from 45% to over 50%, and to increase to over 75% by the year 2010 (Siegel, 1993). In other words, the older population has rapidly become a moderately-educated population. There will be a lag in the pace at which the oldest old attain this level of education because they consist of earlier, less educated cohorts. However, the lower mortality rates of highly educated and higher income persons should translate into a more rapid rate of improvement in the general socioeconomic status of the oldest old than has occurred within the older population overall.

I. GEOGRAPHIC DISTRIBUTION/MOBILITY

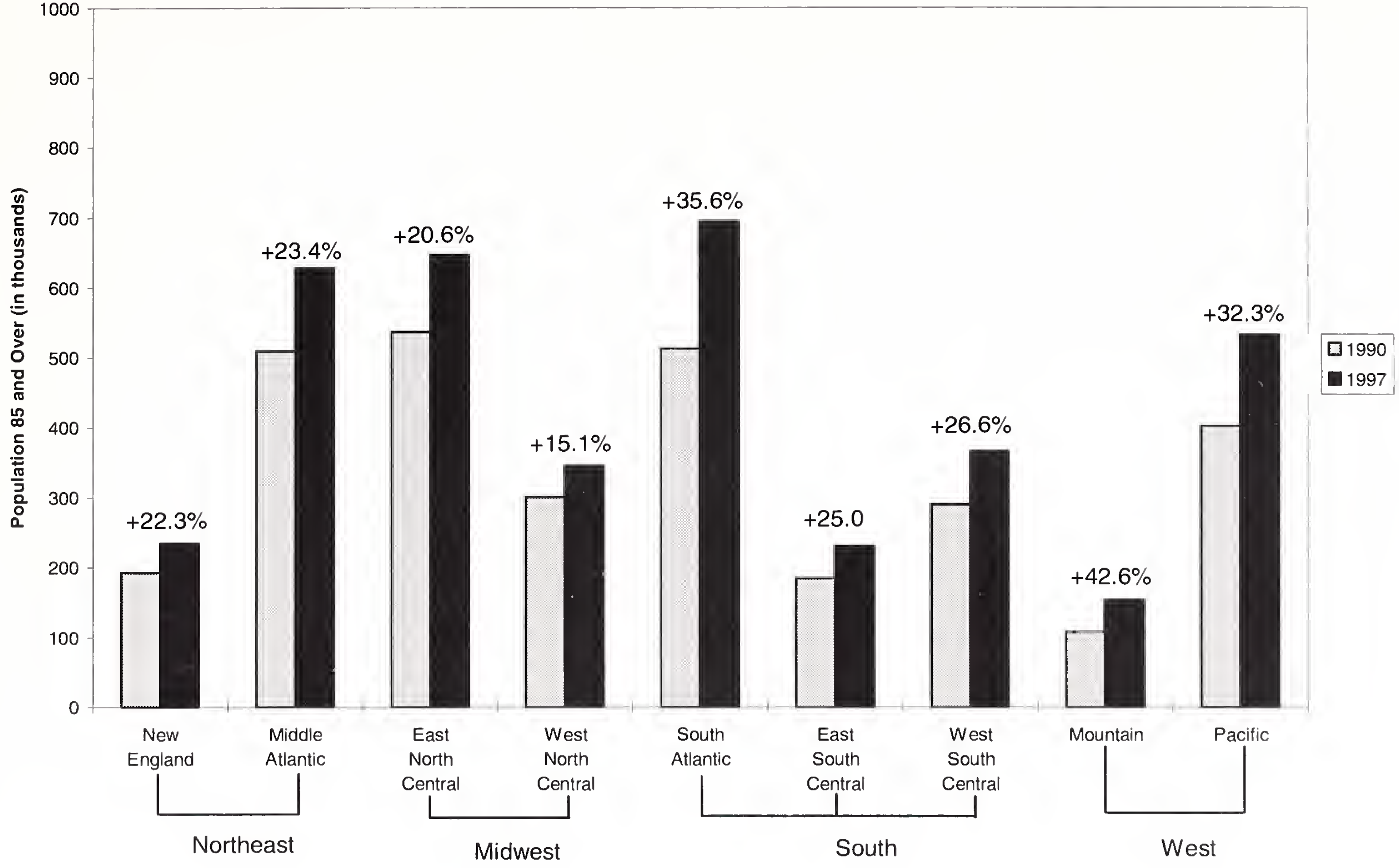
Where are the oldest old located in the United States? And where are their numbers growing the fastest? Knowing where they are most heavily concentrated can be used by Medicare to most effectively target where to distribute information and to identify regions of the country which will have large oldest old populations in the future.

Figure 10 provides estimates of the population aged 85 and over by division of the country, in 1990 and 1997, using U.S. Census and CPS data. The largest number of persons aged 85 and over in 1997 were in the South Atlantic, Middle Atlantic and East North Central states (Table 24 provides 1990 and 1997 estimates by region and state as well).

The Mountain division has had the fastest rate of increase in the oldest old population (including Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, and Nevada) with 42.6% increase in the number of persons aged 85 and over between 1990 and 1997; second has been the South Atlantic division (includes Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida) with 35.6% increase, followed by the Pacific division (Washington, Oregon, California, Alaska, and Hawaii) with 32.3% increase in number of persons 85 and over. The divisions with the lowest rate of growth of the 85 and over population is West North Central (Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas) with 15.1% increase.

Figure 10

ESTIMATES OF THE POPULATION AGED 85 AND OVER BY GEOGRAPHIC AREA 1990-1997



SOURCE: U.S. Bureau of the Census, Population Division, Population Distribution Branch (file ST-97-5). The estimated population is calculated from a demographic components of change model that incorporates information on natural change (births minus deaths) and net migration (net domestic migration and net movement from abroad) that has occurred in the area since the reference date (April 1, 1990), the date of the 1990 census.

Frey (1995) uses 1990 Census data to demonstrate that overall, 'aging in place,' which refers to the graduation of the pre-elderly population into the elderly ranks without moving out of the state, accounts for most of the level of increase in the elderly (defined as age 60 or above) population. States that are most likely to experience substantial growth in their elderly population in general are those states that attracted working age adults, since adults are more likely to migrate at younger ages for jobs than they are to migrate during retirement. Moreover, persons who move for jobs are most likely to be selected according to certain demographic characteristics, such as higher education, higher income, and good health. Thus, states with fastest rates of increasing elderly population are also most likely to see increases in the education, income, and health of their elderly.

Migration from abroad thus far accounts for less than one percent of population growth of the elderly in most states, with the exception of California, Hawaii, New York, and Florida, with most of this growth due to Hispanic and Asian immigrants. Among Asians, migration from abroad accounts for more of the increase in elderly population than within-state migration, and in several states, the same is true for the Hispanic elderly population (Frey 1995).

Table 25 shows the change in distribution of the population aged 65 and over across regions and metropolitan categories between 1960 and 1990. There has been a steady decline in the proportion of the population in Northeast large metro, other metro and non-metro areas since 1960. In other words, the elderly have been leaving the Northeast region at a faster clip than the population as a whole. In comparison, the South and West regions have experienced faster increases in the elderly population than has been seen across all age groups. In particular, large metro and other metro areas in the South and West have experienced gains in the proportion of older persons. Overall, however, Northeast large metro areas continue to contain the largest proportion of the older population.

Future Geographical Trends

The trends described in this section are projected to continue in the coming years as current generation of middle-aged and younger adults drawn to Southern and Western metropolitan areas for employment in the 1980s and 1990s 'age in place.'

J. REGULAR SOURCE OF CARE

Health care providers provide an important means through which information on health insurance coverage in general, and Medicare in specific, can be distributed. Table 26 provides the number and percent of persons aged 85 and over by usual source of care and racial/ethnic category based on data from the 1994 Medicare Care Beneficiary Survey. Approximately 8% of white non-Hispanic and African-American oldest old persons have no usual source of care, compared with about 11% of Hispanic oldest old. For these persons, health care providers may not be a feasible means to convey Medicare information. Persons whose usual source of care is a hospital outpatient department or emergency room also may be more difficult to reach through their provider. Less than 2% of non-Hispanic white oldest old Medicare beneficiaries report their usual source of care to be from an OPD/ER. In contrast, almost 11% of African-American and 4% of Hispanic oldest old beneficiaries report usual source of care from one of these sources. Among persons with access to a doctor's office or clinic or an HMO, health care provider or institution provides a way through which they can receive information on the Medicare program.

CHAPTER 4
CONCLUSIONS

Today's Vulnerable Elderly

The number of vulnerable elderly is large. In 1994, there were over 15 million vulnerable elderly Medicare beneficiaries (Table 5). For the purpose of this profile, and for the Vulnerable Elderly project more generally, we focus on two subgroups of the vulnerable elderly: the oldest-old (i.e., persons 85 and over) and the frail elderly (i.e., persons aged 65-84 with a marker of frail health, generally functional limitations). The primary focus of the profile has been on the oldest-old component of the vulnerable elderly, since they are most easily identified and thus described. Most importantly, as Table 4 demonstrated, being aged 85 or over is very highly associated with health problems. Over 80% of oldest-old Medicare beneficiaries report some functional or mobility limitations, approximately 87% report two or more chronic conditions, and nearly a quarter are long-term care residents.

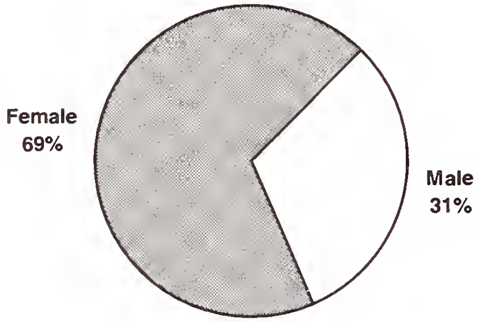
What do we know about the demographics of the oldest-old? The prototypical oldest-old American is a non-Hispanic white, widowed woman who lives alone. If a man lives to age 85, he is usually married (due to women's lower mortality rates and because men tend to marry women who are younger) and lives with his wife. Married oldest-old couples have higher incomes than the widowed women.

The frail elderly outnumber the oldest-old in our estimates by a factor of three. Based on a definition of frailty as reporting any IADL or ADL, there were over 11.7 million frail Medicare beneficiaries aged 65-84 in 1994, compared to approximately 3.9 million oldest-old beneficiaries. In other words, HCFA needs to concentrate at least as much effort on ensuring successful communication of Medicare rights and responsibilities to the frail elderly as to the oldest-old. The frail elderly in several ways resemble the oldest old. They are predominantly white, non-Hispanic women. However, since they are younger, they are more likely to live with their spouse. Less than 10 percent of them are institutionalized, compared to nearly a quarter of the oldest-old.

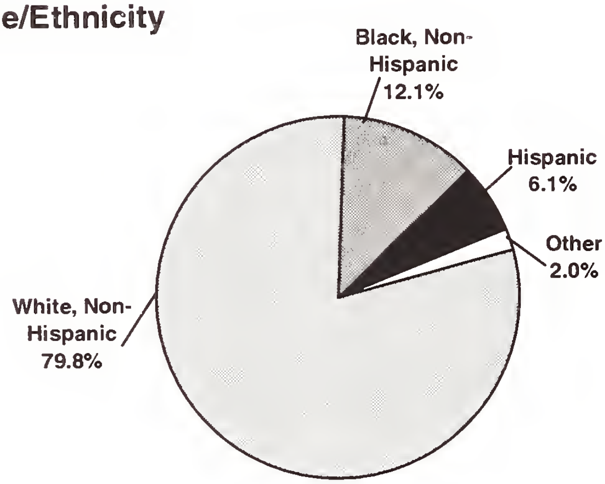
Combining the pictures of the oldest old and frail elderly is complicated by the fact that published tables on persons aged 65-84 by functional limitations are rarely available. Figure 11 presents a complete picture of these vulnerable elderly for three socio-demographic characteristics that could be computed based on the Health & Health Care of the Medicare Population 1994 source book. Of the total vulnerable elderly (as defined by advanced age and/or functional impairment), 69% (or 10.7 million) are women; 80% (or 12.3 million) are non-Hispanic white; and 47% (or 7.2 million) live with a spouse in the community. Non-Hispanic African-American persons comprise 12% of this vulnerable population (approximately the same percent as in the total population), while Hispanic persons make up 6% and "Others" represent only 2% of this population at the present time.

Figure 11
DISTRIBUTION BY SEX, RACE/ETHNICITY, AND LIVING ARRANGEMENTS OF THE VULNERABLE ELDERLY

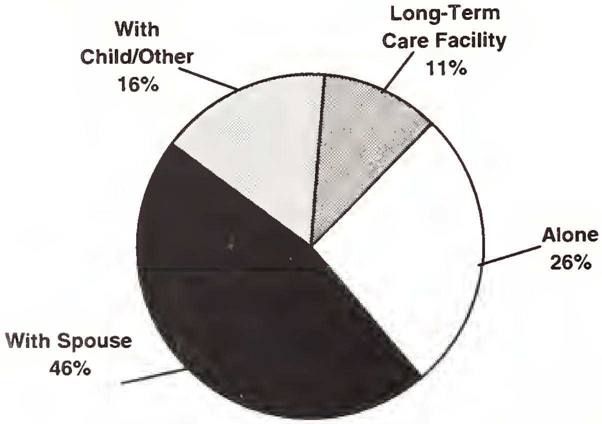
Sex



Race/Ethnicity



Living Arrangement



Source: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Tables 1.2, 2.1 2.3, 2.5a, and 2.5b).

Future Demographic Trends

The older population is growing fast, with the fastest rate of growth occurring among the oldest old. In other words, the older population itself is aging. In about 20 years, the proportion of the U.S. population that is older, or very old, will increase substantially.

The oldest old are a homogenous population in comparison to the rest of the U.S. population. This will change as the oldest old population (and the frail elderly) become an increasingly racially and ethnically diverse population. In particularly, the number of Hispanic and APIs are projected to grow the most dramatically in the coming decades. Along with this will be increased diversity in English-language speaking ability (and perhaps an increase in the proportion foreign-born).

Educational attainment and lifetime earnings are lowest for the oldest old as a result of cohort differences in access to education. This is rapidly changing as younger, more educated and higher income cohorts age. In addition, there are some life-cycle factors that contribute to declining income and, especially, wealth with age following retirement. These life-cycle factors are particularly strong for women, who are more prone to additional loss of income following death of their spouse.

Geographically, Southern and Western states (particularly Nevada) are experiencing the fastest rates of growth of the older population. This reflects an 'aging in place' process whereby working age adults originally drawn to an area because of employment opportunities stays put as they age. To predict the future of where most of the need for communication of rights and communications needs to be targeted, one only needs to look at the current distribution of the working aged population, since most people remain in place when they age.

Less can be projected with the same degree of accuracy about the frail elderly, other than the fact that their numbers will rise substantially. Even in the event that incidence rates of chronic illnesses and functional limitations are substantially lowered by dramatic improvements in medical technology or lifestyle modifications, the process known as demographic momentum ensures that the number of frail elderly will rise sharply. Demographic momentum refers to the result of the large number of baby-boomers in the population (and eventually their children) who will age into late life. Even if there were substantial improvements in late life health for these baby boomers, there will nevertheless still be a high number who are frail. As an example, assume that the proportion of persons who are functionally impaired continues to decline one percentage point every year. Under this very optimistic scenario, by year 2010, the proportion of persons aged 65-84 with any functional limitations would have declined from 39.9% (in 1994) to 23.9% in (2010). Using Siegel's (1994: Table 1.2) projections of the number of persons aged 65-84 in 2010, there would be over 15 million persons aged 65-84 with any functional limitations. Of course, these numbers are purely speculative, but they show that even in the event of continued, substantial improvement in health status of the elderly which some studies detect, the impact of population momentum is still considerable.

Implications for Communication

The assumption underlying this demographic report is that socio-demographic characteristics, such as gender, race and ethnicity, foreign birth, language, marital status, living arrangement, education, and financial resources, affect how people communicate. We assume that they affect if and how people seek information, what information they need, how and where they receive information, and how they understand and use such information. An effective communication strategy, in turn, takes account of these characteristics.

Further research is needed on just how these socio-demographic characteristics, both singly and in combination, relate to elderly people's communication. We can think of several basic, but fundamental, questions that need to be addressed in order to design effective communication programs targeting the vulnerable elderly. One question is whether ethnic or racial differences exist in patterns of communication with, or beliefs about and trust in, large government organizations, such as HCFA. The *Los Angeles Times* (April 20, 1999), for instance, cites several sources that claim African-Americans in Los Angeles, and nationally, are distrustful of the country's child support system. Whether African-Americans or other racial/ethnic groups similarly distrust the Medicare program needs to be determined in order to better fashion how information about rights and responsibilities are communicated.

This report highlights substantial differences in living arrangements between oldest-old women and men, with oldest-old women much more likely to live alone, while men tend to live with their wives. To what extent do these living arrangements influence the potential means of communication? Addressing this question can help ensure that the mediums HCFA eventually selects do not omit important groups of the population. For that matter, the same concerns can be raised with respect to race/ethnicity, country of origin, language, education, and income. Research is needed to evaluate whether persons who differ across these characteristics also vary in their access to and preferences for different types of communication. Moreover, do persons who vary across these groups do a better job of understanding (or being convinced by) information conveyed by some mediums, but not others. For example, are certain groups distrustful of the press, and therefore less likely to believe what is conveyed via newspaper and television, but more trusting of information conveyed over the phone, internet, or mail?

Another question for future research relates to sex differences in knowledge about health insurance and Medicare. Earlier in the report, we speculated that there may be some older women who have a lower base of knowledge about issues related to health insurance in general, and Medicare more specifically, than their spouses. Such differences might arise if she: 1) was not involved in financial decision-making in the household, and 2) was not employed in a position that provided health insurance coverage. Of course, such a situation can also apply to men. Is there is a core of enrollees out there who lack even a basic understanding of health insurance and/or Medicare? If so, communication about rights and obligations may be less successful than it is for the person with more fundamental knowledge of the process.

While these vulnerable elderly are more homogeneous in some respects than the general population, they are very heterogeneous in many respects and expected to become even more so in the future. Many of their socio-demographics, e.g., gender, education, financial resources, present additional challenges to effective communication, as do many of the functional and cognitive impairments associated with their vulnerability in the first place. While further research is critical, the results of this report suggest the hypothesis that an effective communication strategy may need to have multiple, adaptable components: different target locations for reaching people (e.g., home, nursing home, community), pathways (e.g, the individual, family, support systems), means of communication (e.g., written, audio, personal interaction), messages (e.g., tailored to specific interests, questions, rights, protections, processes), and languages.

Future project reports will provide additional information on the availability of and variation in support systems for the oldest old and frail elderly, their dominant health concerns, and experience with communication techniques targeted towards them.

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TABLES

Table 1. NUMBER OF PERSONS 85 AND OVER AND THEIR PERCENTAGE OF THE TOTAL POPULATION (numbers in thousands; estimates and projections as of July 1)

Year	Number	Percent of Total Population
1990	3,050	1.2
1998	3,997	1.5
Projections		
2000	4,259	1.6
2010	5,076	1.9
2020	6,460	2.0
2030	8,455	2.4
2040	13,552	3.7
2050	18,223	4.6

SOURCES: Siegel 1993 (Table 1.2); U.S. Bureau of the Census, Current Population Reports, series P-25, nos. 952, 1095, 1130; U.S. Bureau of the Census, series PE-61, package 1. Total population counts based on middle series projections.

Table 2. POPULATION IN THE OLDER AGES FOR CUMULATIVE AGE GROUPS (numbers in thousands; estimates and projections as of July 1)

	Ages 75 and Over		Ages 80 and Over		Ages 85 and Over		Ages 90 and Over	
Year	Number	Percent Increase[1]	Number	Percent Increase[1]	Number	Percent Increase[1]	Number	Percent Increase[1]
1980	10,052	X	5,224	X	2,270	X	733	X
1990	13,126	30.6	6,982	33.7	3,050	34.4	1,003	36.8
1998	15,903	21.2	8,708	24.7	3,997	31.0	1,464	46.0
Projections[2]								
2000	16,575	4.2	9,160	5.2	4,259	6.6	1,581	8.0
2010	17,972	8.4	10,578	15.5	5,076	19.2	1,971	24.7
2020	21,835	21.5	12,400	17.2	6,460	27.3	2,966	50.5
2030	31,972	46.4	18,010	45.2	8,455	30.9	3,544	19.5
2040	42,220	32.1	26,216	45.6	13,552	60.3	5,902	66.5
2050	44,127	4.5	30,200	15.2	18,223	34.5	9,036	53.1

SOURCES: Siegel 1993 (Table 1.2); U.S. Bureau of the Census, Current Population Reports, series P-25, nos. 952, 1095, 1130; U.S. Bureau of the Census, series PE-61, package 1.

[1] For preceding decade.

[2] Based on middle series estimates of assumptions about fertility, mortality, and immigration.

Table 3. LIFE EXPECTANCY AT BIRTH AND AT AGES 65 AND 85 BY SEX: 1900-1993 (numbers in years)

Year	Both Sexes	Men	Women
At birth			
1900	47.3	46.3	48.3
1950	68.2	65.6	71.1
1960	69.7	66.6	73.1
1970	70.8	67.1	74.7
1980	73.7	70.0	77.4
1996	76.1	73.1	79.1
At 65 years			
1900-02	11.9	11.5	12.2
1950	13.9	12.8	15.0
1960	14.3	12.8	15.8
1970	15.2	13.1	17.0
1980	16.4	14.1	18.3
1996	17.5	15.7	19.0
At 85 years			
1900-02	4.0	3.8	4.1
1950	4.7	4.4	4.9
1960	4.6	4.4	4.7
1970	5.3	4.7	5.6
1980	6.0	5.1	6.4
1996	6.1	5.4	6.4

SOURCES: National Center for Health Statistics, *Health, United States, 1995* (Table 29) and National Vital Statistics Report, Vol. 47, No. 13 (Table 4).

Table 4. FUNCTIONING AND HEALTH INDICATORS OF FRAILTY BY AGE: 1994
(numbers in thousands)

	65-84 YEARS		85 YEARS AND OVER	
	Number	Percent	Number	Percent
All beneficiaries	30,158.0	100	3,858.0	100
Some functional limitation	11,739.5	38.9	3,122.7	80.9
Some upper extremity limitation	11,705.7	38.8	2,627.7	68.1
Some mobility limitation	12,681.5	42.1	3,092.6	80.2
Some social activity limitation	9,577.3	31.8	2,144.7	55.6
Two or more chronic conditions	20,809.2	69.0	3,339.1	86.6
Selected diseases/conditions				
Heart disease	11,470.8	38.0	1,997.3	51.8
Arthritis	17,852.6	59.2	2,460.2	63.8
Stroke	3,363.8	11.2	820.2	21.3
Alzheimer's Disease	952.1	3.2	738.8	19.2
Cancer other than skin	5,941.9	19.7	844.9	21.9
Mental disorder	1,392.2	4.6	292.4	7.6
Long-term care facility residence	865.0	2.9	900.0	23.3

Source: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Tables 2.1 and 2.2)

Table 5. TOTAL NUMBER OF MEDICARE BENEFICIARIES, BY AGE AND FUNCTIONAL LIMITATION STATUS[1] (numbers in thousands)

Age and Mobility Limitation Status	Number	Percent of Beneficiaries ≥65
65-84 years		
without functional limitation	18,418.5	54.1
with functional limitation	11,739.5	34.5
85 and over		
without functional limitation	735.3	2.2
with functional limitation	3,122.7	9.2
Total ≥ 65	34,016	100.0

SOURCE: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Table 2.1).

[1] Functional limitation is defined as one or more limitation in any of the activities of daily living (ADLs) or instrumental activities of daily living (IADLs) due to health problems.

Table 6. TOTAL NUMBER OF MEDICARE BENEFICIARIES, BY AGE AND FUNCTIONAL[1] OR MOBILITY[2] LIMITATION STATUS (numbers in thousands)

Age and Mobility Limitation Status	Number	Percent of Beneficiaries ≥65
65-84 years		
no functional or mobility limitation	14,679.1	43.2
some functional limitation	11,739.5	34.5
some mobility limitation but no functional limitation	3,739.4	11.0
85 and over		
no functional or mobility limitation	416.6	1.2
some functional limitation	3,122.7	9.2
some mobility limitation but no functional limitation	318.7	0.9
Total ≥ 65	34,016	100.0

SOURCE: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Table 2.1).

[1] Functional limitation is defined as one or more limitation in any of the activities of daily living (ADLs) or instrumental activities of daily living (IADLs) due to health problems.

[2] Mobility limitation is defined as having a little, some, or a lot of difficulty, or unable to walk a quarter of a mile.

Table 7. FUNCTIONAL LIMITATION BY AGE: 1994 (numbers in thousands)

	65-84 YEARS		85 YEARS AND OVER	
	Number	Percent	Number	Percent
All Medicare Beneficiaries	30,158	100	3,858	100
Functional Limitation[1]				
None	18,418.5	61.1	735.3	19.1
IADL only[2]	5,791.0	19.2	863.8	22.4
One to two ADLs[3]	3,621.0	12.0	842.6	21.8
Three to five ADLs	2,327.5	7.7	1,416.3	36.7
Community Residents[4]				
Functional Limitation	29,290.2	100	2,954.0	100
None	18,398.3	62.8	734.4	24.9
IADL only[2]	5,724.5	19.5	845.2	28.6
One to two ADLs[3]	3,444.6	11.8	687.0	23.3
Three to five ADLs	1,722.8	5.9	687.5	23.3
Long-Term Care Facility Only Residents[5]	865	100	900	
Functional Limitation				
None	3.0	0.3	0	0
IADL only[2]	64.1	7.4	17.7	2.0
One to two ADLs[3]	179.0	20.7	153.4	17.0
Three to five ADLs	619.0	71.6	729.0	81.0

SOURCE: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Tables 2.1, 2.5a, and 2.5b).

[1] Functional limitation is defined as one or more limitation in any of the activities of daily living (ADLs) or instrumental activities of daily living (IADLs) due to health problems.

[2] IADL (instrumental activity of daily living) is defined as an activity related to independent living. They include preparing meals, managing money, shopping for groceries or personal items, performing light or heavy housework, and using a telephone.

[3] ADL (activity of daily living) is defined as an activity related to personal care. They include bathing or showering, getting in and out of bed or a chair, using the toilet, and eating.

[4] Community resident is defined as a Medicare beneficiary who lived solely in household units during 1994 and received a community interview.

[5] Long-term care facility resident is defined as a Medicare beneficiary who lived solely in long-term care facility during 1994 and received a facility interview. A long-term care facility is defined as having three or more long-term care beds, and providing either personal care services to residents, continuous supervision of residents, or long-term care services throughout the facility or in a separately identifiable unit. Types of long-term care facilities include licensed nursing homes, skilled nursing homes, intermediate care facilities, retirement homes, domiciliary or personal care facilities, distinct long-term care units in a hospital complex, mental health facilities and centers, assisted and foster care homes, and institutions for the mentally retarded and developmentally disabled.

Table 8. POPULATION AGED 65-84 WITH SOME FUNCTIONAL LIMITATION BY GENDER: 1994 (numbers in thousands)

	AGE 65-84 YEARS	
	Number	Percent
Functional Limitation[1]	11,739.5	100
Male	3,819.2	32.5
Female	7,919.2	67.5

SOURCE: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Table 2.1).

[1] Functional limitation is defined as one or more limitation in any of the activities of daily living (ADLs) or instrumental activities of daily living (IADLs) due to health problems.

Table 9. MALES PER 100 FEMALES FOR THE POPULATION 75 AND OVER, BY CUMULATIVE AGE GROUP: 1960-2020

				Projections	
Age Group	1980	1990	1998	2000	2010[1]
75 and over	55.2	54.4	59.1	59.2	63.6
80 and over	48.8	46.4	50.4	50.5	55.5
85 and over	43.5	38.6	41.0	40.5	45.4
90 and over	39.4	31.3	32.8	31.5	35.1

SOURCES: U.S. Bureau of the Census, Current Population Reports, series P-25, nos. 952, 1095, 1130; U.S. Bureau of the Census, series PE-61, package 1.

[1] Based on middle series estimates of assumptions about fertility, mortality, and immigration.

Table 10. ESTIMATED AND PROJECTED POPULATION 85 AND OVER, BY RACE AND ETHNICITY: 1990 AND 2020 (numbers in thousands)

	1990		2020	
Race/Ethnicity	Number	Percent	Number	Percent
White	3,621.2	90.4	5,676.5	87.9
African-American	303.6	7.6	482.4	7.5
American Indian, Eskimo, and Aleut	20.0	0.5	50.8	0.8
Asian and Pacific Islander	60.1	1.5	250.4	3.9
Hispanic	168.6	4.3	605.2	9.4
Non-Hispanic	3,774.5	95.7	5,854.8	90.6

SOURCES: Siegel 1993 (Table 6.2); U.S. Bureau of the Census, Current Population Reports, series P-20, no. 450 (Table 1), and 514 (Table 1).

Table 11. POPULATION AGED 65-84 WITH SOME FUNCTIONAL LIMITATION BY RACE AND ETHNICITY: 1994 (numbers in thousands)

	AGE 65-84 YEARS	
	Number	Percent
Functional Limitation[1]	11,739.5	100
White Non-Hispanic	9,622.5	82.0
African-American Non-Hispanic	1,202.0	10.2
Hispanic	643.6	5.5

SOURCE: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Table 2.3).

[1] Functional limitation is defined as one or more limitation in any of the activities of daily living (ADLs) or instrumental activities of daily living (IADLs) due to health problems.

Table 12. POPULATION 85 AND OVER, BY RACE AND ETHNICITY: 1960-2050 (numbers in thousands; as of July 1)

Year	Non-Hispanic White		African-American		Hispanic[1]		Asian, Pacific Islander, Native American	
	Number	Percent Increase[2]	Number	Percent Increase[2]	Number	Percent Increase[2]	Number	Percent Increase[2]
1980	2,042	X	160	X	50	X	21	X
1990	2,706	32.5	222	39.1	94	87.9	39	86.4
1998	3,410	26.0	289	30.1	169	80.3	80	106.3
Projections[3]								
2000	3,694	8.3	310	7.2	183	8.5	76	-4.7
2010	4,788	29.6	381	22.7	345	88.9	166	117.8
2020	5,123	7.0	449	18.0	605	75.2	301	81.0
2030	6,430	25.5	557	28.3	988	63.2	490	62.6
2040	9,965	55.0	947	64.2	1,859	88.2	833	70.1
2050	12,496	25.4	1,345	42.1	3,245	74.6	1,218	46.2

SOURCES: U.S. Bureau of the Census, series PE-10 (package 3), PE-61, package 1.

[1] Persons of Hispanic origin may be of any race.

[2] For preceding decade.

[3] Based on middle series estimates of assumptions about fertility, mortality, and immigration.

Table 13. PERCENT FOREIGN-BORN OF POPULATION 65 AND OVER, BY AGE, RACE AND HISPANIC STATUS: 1980-98

Age, Race and Hispanic Status	1980	1990	1998
All races			
65+	11.7	8.6	8.7
85+	18.6	15.0	--
White			
65+	11.7	7.7	7.7
85+	19.1	14.9	--
African-American			
65+	2.8	3.6	6.1
85+	3.4	3.7	--
American Indian, Eskimo, and Aleut			
65+	3.6	2.7	4.0
85+	4.6	3.6	--
Asian and Pacific Islander			
65+	65.2	65.9	68.2
85+	70.7	80.7	--
Hispanic[1]			
65+	51.8	48.8	51.6
85+	58.3	63.2	--
Non-Hispanic			
65+	10.6	7.2	6.6
85+	17.7	13.7	--

SOURCES: U.S. Bureau of the Census, Current Population Reports, series P-20, no. 450 (Table 6-8), and series PPL-92, (Table 1).
--Denotes figure unavailable in published tables.
[1] Persons of Hispanic origin may be of any race.

Table 14. ABILITY TO SPEAK ENGLISH BY LANGUAGE SPOKEN AT HOME OF POPULATION 65 AND OVER: 1990

(numbers in thousands)

			LANGUAGE SPOKEN AT HOME					
	Total Population		Spanish		Asian or Pacific Island Language		Other Language	
Speaks English	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All the time or "very well"	29,394	94.2	399	37.7	99	28.0	1,515	63.1
"Well"	876	2.8	223	21.1	82	23.2	570	23.7
"Not well" or not at all	925	3.0	435	41.1	174	48.8	317	13.2
Total	31,195	100.0	1,057	100.0	355	100.0	2,402	100.0
Linguistically isolated	1,010	3.2	373	35.3	134	37.7	503	20.9

SOURCES: U.S. Bureau of the Census, 1990 Census Summary Tape File 3 (STF3) (database C90STF3C1).

[1] Linguistic isolation is defined as household in which no other member aged 14 or over who speaks only English or speaks English "very well.

Table 15. MARITAL DISTRIBUTION OF THE POPULATION AGED 65 AND OVER, BY AGE AND SEX: 1970-98

	Male		Female	
Age and Marital Status	Age 65 and Over	Age 85 and Over	Age 65 and Over	Age 85 and Over
1970				
Single	7.5	8.3	8.1	9.5
Married	72.4	42.4	36.5	9.9
Widowed	17.1	47.0	52.2	79.0
Divorced	3.0	2.3	3.2	1.6
1980				
Single	5.5	5.6	6.7	7.9
Married	76.3	48.4	37.5	8.4
Widowed	14.6	43.8	51.7	81.8
Divorced	3.6	2.1	4.2	2.0
1990				
Single	4.2	3.5	4.9	6.2
Married	76.5	51.1	41.4	10.6
Widowed	14.2	43.4	48.6	79.8
Divorced	5.0	2.0	5.1	3.4
1998				
Single	3.8	4.5	4.7	5.5
Married	75.1	49.9	42.9	13.4
Widowed	14.9	42.0	45.2	77.4
Divorced	6.1	3.6	7.1	3.7

SOURCES: Siegel 1993 (Table 6.2); U.S. Bureau of the Census, Current Population Reports, series P-20, no. 450 (Table 1), and 514 (Table 1).

Table 16. POPULATION AGED 65-84 WITH SOME FUNCTIONAL LIMITATION BY LIVING ARRANGEMENT: 1994 (numbers in thousands)

	AGE 65-84 YEARS	
	Number	Percent
Functional Limitation[1]	11,739.5	100
Community Resident[2] Living:		
Alone	2,826.0	24.1
With Spouse	5,793.5	49.4
With Children/Others	2,272.2	19.4
Long-Term Care Facility Only Resident[3]	862.0	7.3

SOURCE: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Tables 2.5a and 2.5b).

[1] Functional limitation is defined as one or more limitation in any of the activities of daily living (ADLs) or instrumental activities of daily living (IADLs) due to health problems.

[2] Community resident is defined as a Medicare beneficiary who lived solely in household units during 1994 and received a community interview.

[3] Long-term care facility resident is defined as a Medicare beneficiary who lived solely in long-term care facility during 1994 and received a facility interview. A long-term care facility is defined as having three or more long-term care beds, and providing either personal care services to residents, continuous supervision of residents, or long-term care services throughout the facility or in a separately identifiable unit. Types of long-term care facilities include licensed nursing homes, skilled nursing homes, intermediate care facilities, retirement homes, domiciliary or personal care facilities, distinct long-term care units in a hospital complex, mental health facilities and centers, assisted and foster care homes, and institutions for the mentally retarded and developmentally disabled.

Table 17. ESTIMATED INSTITUTIONALIZED[1] POPULATION 85 AND OVER, BY RACE AND ETHNICITY: 1998 (numbers in thousands)

Age, Race, and Hispanic Status	1998 Number	 Percent
All races	846.8	21.1
White	792.3	21.9
African-American	45.2	14.9
American Indian, Eskimo, and Aleut	2.5	12.7
Asian and Pacific Islander	6.9	11.1
Hispanic[2]	17.3	10.1
Non-Hispanic	829.5	21.6

SOURCES: U.S. Bureau of the Census, series PE-61.

[1] Institutionalized population includes persons residing in institutions. At these ages, institutions are primarily nursing homes and mental hospitals, but may also include prisons and jails.

[2] Persons of Hispanic origin may be of any race.

Table 18. LIVING ARRANGEMENT DISTRIBUTION OF THE POPULATION AGED 65 AND OVER, BY AGE AND SEX: 1980 AND 1990

	1980			1990		
Age and Living Arrangements	Both Sexes	Men	Women	Both Sexes	Men	Women
65 and over						
Living						
Alone	29.3	14.6	39.4	31.0	15.7	42.0
With spouse	52.9	75.2	37.4	54.1	74.3	39.7
With other relatives	16.1	8.4	21.4	12.6	7.7	16.1
With nonrelatives[1] only	1.7	1.7	1.7	2.2	2.3	2.2
85 and over						
Living						
Alone	38.8	25.9	45.2	47.1	28.1	56.8
With spouse	21.9	48.9	8.4	22.6	47.0	10.2
With other relatives	36.1	22.3	43.0	25.4	21.1	27.5
With nonrelatives only	3.2	2.9	3.4	4.9	3.8	5.5

SOURCES: U.S. Bureau of the Census, Current Population Reports, series P-20, no. 450 (Table L).

[1] Nonrelatives includes any household member not related to the elderly person by birth, marriage, or adoption. May include boarder, housemate or roommate, or married partner. These figures exclude the institutionalized population.

Table 19. PERCENTAGE OF THE POPULATION AGED 65 AND OVER WITH HIGH FUNCTIONAL ILLITERACY,[1] BY AGE, SEX, AND RACE/SPANISH ORIGIN: 1980 AND 1998

Year, Sex, Race/Spanish Origin	Ages 65 and Over	Ages 85 and Over
1980		
Total both sexes	8.7	14.8
Male	10.0	19.1
Female	7.7	12.9
Total African-American	27.2	37.9
Male	34.3	47.5
Female	22.4	33.1
Total Spanish origin[2]	37.6	--
Male	37.7	--
Female	37.5	--
1998		
Total both sexes	3.5	--
Male	3.7	--
Female	3.4	--
Total African-American	7.6	--
Male	9.6	--
Female	6.3	--
Total Spanish origin	26.5	--
Male	26.1	--
Female	26.7	--

SOURCES: Siegel 1993 (Table 7.3); U.S. Bureau of the Census, Current Population Reports, series P-20, no. 513 (Table 1).

--Denotes figure unavailable in published tables.

[1] High functional illiteracy is defined as failure to complete more than four years of elementary education.

[2] Persons of Hispanic origin may be of any race.

Table 20. PERCENTAGE OF MALE AND FEMALE HIGH SCHOOL GRADUATES AGED 65 AND OVER, BY AGE, SEX, AND RACE/SPANISH ORIGIN: 1998

Sex, Race/Spanish Origin	Age 65 and Over	Age 75 and Over
Total both sexes	67.0	62.0
Male	67.6	62.7
Female	66.6	61.5
Total African-American	43.4	35.5
Male	41.9	29.5
Female	44.4	39.2
Total Spanish origin[1]	29.5	27.1
Male	32.0	28.2
Female	27.7	26.3

SOURCES: U.S. Bureau of the Census, Current Population Reports, series P-20, no. 513 (Table 1).

[1] Persons of Hispanic origin may be of any race.

Table 21. PERCENTAGE OF PERSONS AGED 65 AND OVER WITH INCOME BELOW THE POVERTY LINE, BY YEAR AND RACE/SPANISH ORIGIN: 1959-1997

	Year				
Sex, Race/Spanish Origin	**1959**	**1970**	**1980**	**1990**	**1997**
Total (all races)	35.2	24.6	15.7	12.2	10.5
White	33.1	22.6	13.6	10.1	9.0
African-American	62.5[1]	48.0	38.1	33.8	26.0
American Indian, Eskimo, or Aleut	--	--	--	--	--
Asian and Pacific Islander	--	--	--	12.1	12.3
Hispanic origin[2]	--	24.9[3]	30.8	22.5	23.8

SOURCES: U.S. Bureau of the Census, Historical Poverty Tables-People.

--Denotes figure unavailable in published tables.

[1] Figure corresponds to 1965.

[2] Persons of Hispanic origin may be of any race.

[3] Figure corresponds to 1973.

Table 22. PERCENTAGE OF PERSONS AGED 65 AND OVER WITH INCOME BELOW THE POVERTY LINE, BY AGE AND RACE/SPANISH ORIGIN: 1990

	Age	
Race/Spanish Origin	**65-74**	**75 and Over**
All persons	10.4	16.5
White	8.4	14.6
African-American	28.6	37.3
American Indian, Eskimo, or Aleut	26.5	34.7
Asian or Pacific Islander	11.3	13.5
Hispanic origin[1]	21.9	27.8

SOURCES: U.S. Bureau of the Census, 1990 Census data, (database C90STF3C1).

[1] Persons of Hispanic origin may be of any race.

Table 23. DISTRIBUTION OF PERSONS AGED 75-84 AND 85 AND OVER BY HEALTH INSURANCE COVERAGE, 1994 (numbers in thousands)

Age and Insurance Coverage	Number	Percent
Age 75-84		
Medicare fee-for service only	2,867.3	9.8
Supplemental health insurance		
Medicaid	3,012.0	10.3
Individually purchased private insurance	8,931.4	30.5
Employer-sponsored private insurance	10,482.7	35.8
Both types of private insurance	1,501.7	5.1
Medicare HMO	2,497.6	8.5
Age 85 and over		
Medicare fee-for service only	347.9	10.5
Supplemental health insurance		
Medicaid	362.4	10.9
Individually purchased private insurance	1,094.8	32.9
Employer-sponsored private insurance	1,172.9	35.2
Both types of private insurance	114.5	3.4
Medicare HMO	236.0	7.1

SOURCE: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Table 1.6).

Table 24. ESTIMATES OF THE POPULATION AGED 85 AND OVER, BY STATE: 1990-1997
(numbers in thousands; figures as of July 1)

Region, Division, and State	Population Aged 85 and Over 1990	Population Aged 85 and Over 1997	Increase, 1990-1997 Amount	Increase, 1990-1997 Percent
Northeast	700.7	862.6	161.9	23.1
Midwest	836.5	992.1	155.6	18.6
South	986.3	1291.9	305.5	31.0
West	509.9	685.7	175.9	34.5
Northeast				
New England	192.3	235.2	42.8	22.3
Middle Atlantic	508.4	627.4	119.1	23.4
Midwest				
East North Central	536.1	646.5	110.4	20.6
West North Central	300.4	345.7	45.2	15.1
South				
South Atlantic	512.4	694.8	182.5	35.6
East South Central	184.6	230.6	46.1	25.0
West South Central	289.4	366.4	77.0	26.6
West				
Mountain	107.4	153.2	45.8	42.6
Pacific	402.4	532.5	130.1	32.3
New England				
Maine	18.2	21.4	3.2	17.6
New Hampshire	13.2	16.6	3.4	25.4
Vermont	7.5	9.0	1.5	20.4
Massachusetts	91.1	109.4	18.3	20.1
Rhode Island	15.8	19.8	4.0	25.2
Connecticut	46.5	59.0	12.5	26.8
Middle Atlantic				
New York	243.3	290.3	47.0	19.3
New Jersey	94.4	123.8	29.4	31.1
Pennsylvania	170.6	213.3	42.7	25.0
East North Central				
Ohio	137.6	164.7	27.2	19.7
Indiana	71.6	84.4	12.7	17.8
Illinois	146.3	176.9	30.5	20.9
Michigan	106.4	132.5	26.0	24.5
Wisconsin	74.2	88.1	13.9	18.8
West North Central				
Minnesota	68.7	79.1	10.4	15.2
Iowa	55.1	61.3	6.2	11.2
Missouri	80.8	94.8	14.0	17.3
North Dakota	11.2	13.8	2.6	23.2
South Dakota	13.3	15.0	1.7	12.5
Nebraska	29.1	32.9	3.8	13.0
Kansas	42.2	48.7	6.5	15.5

continued...

Table 24 (continued)

Region, Division, and State	Population Aged 85 and Over		Increase, 1990-1997	
	1990	1997	Amount	Percent
South Atlantic				
Delaware	7.1	9.2	2.1	30.4
Maryland	46.2	61.5	15.2	33.0
District of Columbia	7.6	8.8	1.1	14.8
Virginia	59.6	77.8	18.2	30.5
West Virginia	25.3	30.1	4.8	18.8
North Carolina	69.9	94.4	24.5	35.0
South Carolina	30.5	42.9	12.4	40.5
Georgia	56.9	77.3	20.4	35.8
Florida	209.2	293.0	83.8	40.0
East South Central				
Kentucky	46.2	55.5	9.3	20.1
Tennessee	58.5	74.5	16.0	27.3
Alabama	48.0	61.3	13.3	27.8
Mississippi	31.9	39.4	7.5	23.4
West South Central				
Arkansas	35.0	42.3	7.4	21.1
Louisiana	43.2	53.2	10.0	23.2
Oklahoma	45.6	54.7	9.1	20.0
Texas	165.7	216.2	50.5	30.5
Mountain				
Montana	10.6	14.3	3.6	34.1
Idaho	11.4	15.9	4.4	38.9
Wyoming	4.5	6.0	1.5	32.8
Colorado	33.0	43.7	10.7	32.5
New Mexico	14.1	19.8	5.7	40.3
Arizona	12.5	19.9	7.4	58.6
Utah	13.7	19.8	6.1	44.6
Nevada	7.5	13.9	6.3	84.4
Pacific				
Washington	56.1	74.9	18.8	33.5
Oregon	38.8	51.1	12.3	31.8
California	296.1	389.1	92.9	31.4
Alaska	1.2	2.1	0.8	68.3
Hawaii	10.2	15.4	5.2	50.9

SOURCE: U.S. Bureau of the Census, Population Division, Population Distribution Branch (file ST-97-5). The estimated population is calculated from a demographic components of change model that incorporates information on natural change (births minus deaths) and net migration (net domestic migration and net movement from abroad) that has occurred in the area since the reference date (April 1, 1990), the date of the 1990 census.

Table 25. CHANGE IN DISTRIBUTION OF THE POPULATION AGED 65 AND OVER ACROSS REGIONS AND METROPOLITAN CATEGORIES: 1960-70, 1970-80, 1980-90

Region and Metropolitan Category	Population Aged 65 and Over				Increase, 1990-1997		
	1960	1970	1980	1990	1960-70	1970-80	1980-90
Northeast							
Large metro	30.6	29.8	26.9	25.5	-0.8	-2.9	-1.4
Other metro	12.4	11.6	10.9	10.7	-0.8	-0.7	-0.2
Non metro	14.9	13.3	12.3	11.2	-1.6	-1.0	-1.1
South							
Large metro	6.6	8.1	9.3	9.7	1.5	1.2	0.4
Other metro	9.2	10.3	11.7	12.8	1.1	1.4	1.1
Non metro	11.7	11.5	12.1	11.6	-0.2	0.6	-0.5
West							
Large metro	9.4	10.0	10.6	11.3	0.6	0.6	0.7
Other metro	2.5	2.7	3.3	3.8	0.2	0.6	0.5
Non metro	2.6	2.6	3.0	3.4	0.0	0.3	0.4
Total	100.0	100.0	100.0	100.0			

SOURCE: Frey 1992 (Table 3).

Table 26. DISTRIBUTION OF PERSONS AGED 85 AND OVER BY USUAL SOURCE OF CARE AND RACE/ETHNICITY, 1994 (numbers in thousands)

Race/Ethnicity and Usual Source of Care	Number	Percent
White non-Hispanic		
None	179.9	7.9
Doctor's office	1,634.1	71.9
Doctor's clinic	212.6	9.4
HMO	118.2	5.2
Hospital OPD/ER	44.8	2.0
Other clinic/health center	84.4	3.7
African-American non-Hispanic		
None	16.3	6.9
Doctor's office	155.7	66.0
Doctor's clinic	15.9	6.7
HMO	6.5	2.7
Hospital OPD/ER	24.8	10.5
Other clinic/health center	16.9	7.2
Hispanic		
None	16.8	11.2
Doctor's office	94.5	63.0
Doctor's clinic	8.1	5.4
HMO	5.3	3.6
Hospital OPD/ER	5.9	3.9
Other clinic/health center	19.3	12.9

SOURCE: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Table 5.3).

RAND

Report on the Support Systems Available to and Utilized by the Frail and Oldest Elderly

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May 10, 1999

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CHAPTER 1
INTRODUCTION

This report provides an overview of the support systems used by the oldest and frail elderly in the United States. It is one of a series of reports intended to inform the Health Care Financing Administration's (HCFA) efforts to promote greater awareness and exercise of Medicare rights and responsibilities among beneficiaries made vulnerable by advanced age and/or frailty. The first study in this series provided a national demographic profile of the frail and oldest old in the United States today. The study reported here identifies the sources of support that are available to and employed by this population of Medicare beneficiaries and, when possible, describes variation in availability and use across different segments of this population. Subsequent reports will include an annotated bibliography of health literature pertaining to the frail and oldest elderly, a description of effective techniques being used to communicate with people in this population, and recommended strategies for communicating Medicare rights and protections to these beneficiaries

Over 15 million elderly Medicare beneficiaries in the United States today are frail (defined in terms of functional limitation) and/or advanced in age (85 years of age or older). Our demographic report revealed that, at present, 67% of these vulnerable elderly are women; 80% are non-Hispanic white, 12% non-Hispanic African-Americans, 6% Hispanic, and 2% other. With respect to living arrangements, 47% live with a spouse in the community, 26% live alone, 16% with a child or other person, and 11% in a long-term care facility. The frail and oldest old are projected to become more racially and ethnically diverse in the future and to increase substantially in number. Almost all of these (frail and oldest old) 15 million beneficiaries (95%) experience some functional difficulty in daily living (Beckett and Pearson, 1999).

Social support refers to the provision of physical, emotional, financial, advisory, or informational assistance by other persons. In this report, we focus on three kinds of support: assistance with daily living (personal care and instrumental assistance), professional medical care, and support in the form of information. The first two were chosen because they are particularly needed by the frail and oldest old and represent increasingly important points of social contact. They also represent the focus of much of the gerontology, social science, and health literature. Personal care refers to assistance completing the major activities of daily living (ADLs) such as grooming, bathing, and feeding. Instrumental assistance refers to instrumental activities of daily living (IADLs), broadly defined to include shopping, meal preparation, and transportation. The third focus, information support, was chosen because of its direct relevance to the issue of communicating rights and protections. Moreover, sources of information support frequently are utilized when the older person is in good health, as well as poor health. Thus, they may be useful for conveying information before it is necessary to act on it. Unfortunately, the literature on much of this support, e.g., use of legal and financial advisors, is less developed within the social support literature. This limitation is reflected in its limited treatment in this document.

In addition to distinguishing the kind (or purpose) of the support, this report makes a distinction between informal support and formal support systems. Defined as unpaid support, informal support is provided without charge by family, friends, or volunteers in community or religious organizations. The providers of formal support, on the other hand, are paid for their assistance or service.

The next chapter, Chapter 2, describes our literature review methods. Chapter 3 discusses the nature, extent, and, where possible, the variation across subpopulations in informal support. Chapter 4 describes the nature, extent, and, where possible, the variation across subpopulations in formal social support. Chapter 5 summarizes the dominant patterns of social support reported in this document, identifies who is most likely to not receive informal and/or formal social support, and discusses the implications for communication strategies.

Frail Elderly and Over 85 — Report on Support Systems
RAND
1999

CHAPTER 2
METHODS

LITERATURE SEARCH

This report is based on literature review on the oldest and frail elderly's use of social support. The information was collected from materials identified through library database and internet searches. We began with an automated search of several databases: MEDLINE, HealthStar, Ageline, PsycInfo (Psychological Abstracts), Mental Health Abstracts, Sociological Abstracts, Social SciSearch (Social Science Citation Index). Keywords used for these searches included:

> "aged, 80 and over" or "85+" or "very old" or "oldest old" or "frail elderly" or "vulnerable elderly" or ["elderly" and "vulnerability"] or "homebound" or "housebound" or "senile dementia"
>
> and
>
> "home care services" or "home care" or "home health care" or "home health aides" or "home care agencies" or "home delivered meals" or "caregiver-" or "homemaker-" or "community health services!" or "community health centers!" or "community health aides" or "community mental health" or "social welfare!" or "social work!" or "social agenc-" or "social program-" or "personal care" or "assist-" or "needs" or "outreach" or "charit-" or "respite" or "support-" or "service-" or "network-"

All searches were limited to publication in the United States and the English language. The initial search was limited to articles published between 1994 and 1999. We scanned the titles for pertinent articles and read the abstracts. If the article was still deemed pertinent, we then obtained the article. Additional studies were identified from the reference lists in these articles.

A second search related to financial services and proceeded in two steps: 1) a search of the database Ageline for the period 1978-1999 using the key words: "financ-" and "plan-," and 2) a search of the Business Periodicals Index for the period 1991-1999 using the key words: "financ-" and "plan-" and ("elderly" or "aged or "very old" or "oldest old").

The second stage of the literature search involved the internet. We began with a search of known relevant government and not-for-profit organization sites: Administration on Aging, American Association of Retired Persons (AARP), Office of Assistant Secretary on Planning and Evaluation, National Institute on Aging, and National Center for Health Statistics. We used information from these sites and identified links to additional sources.

Studies were selected based on the following criteria: age and frailty level of sample, national representativeness, and recency. Not all studies met all three criteria, however. In particular, two major national studies of older persons, the Longitudinal Study on Aging (1984-1990) and the Channeling Experiment (1982-1985), were initiated 15 or more years ago. We included findings from these earlier studies when we expected the overall patterns to persist over time.

To the extent possible, we limited our search to the frail elderly (i.e. persons aged 65-84 with some indicators of frailty) and oldest old (i.e. persons 85 and over). In general, it was very difficult to maintain consistency in definition of the target population since we relied entirely upon a literature review. In all tables, we clearly define the population under consideration in either the title or in the text.

DEFINITIONS

Definitions of key terms used in this document are given below.

Personal care. Assistance completing major activities of daily living (ADLs).

ADLs. Activities of daily living (include bathing, showering, getting in and out of bed or a chair, using the toilet, and eating).

Instrumental assistance. Assistance completing instrumental activities of daily living (IADLs).

IADLs. Instrumental activities of daily living are activities related to independent living and include preparing meals, managing money, shopping, performing housework, and using a telephone.

Assistance with daily living. Assistance completing one or more ADL and/or one or more IADL.

Informal care. Broadly defined as assistance by unpaid caregivers such as family, friends, or volunteers in community or religious organizations.

Formal care. Assistance, information, or other types of support provided by caregivers who are paid (either by the individual or the government).

CHAPTER 3
INFORMAL SUPPORT SYSTEMS

In this chapter, we examine the descriptive information and, where possible, empirical data on the nature and extent of informal services provided by different sources, including family, friends, volunteer agencies, cultural groups, and churches. Older persons draw on these various sources of support for different reasons. People attend church for spiritual support when they are physically and cognitively able to do so. In times of poor or worsening health, many rely on family and friends for instrumental or personal care.

Informal support is unpaid and encompasses a range of services. Informal care may be provided by families and friends for activities related to personal care (e.g. grooming, bathing, toilcting), instrumental activities of daily living (e.g. housekeeping, chores), or with skilled care (e.g., dressing changes, catheter care, injections). Other types of informal care include household budgeting and financial planning, emotional support, transportation, and shopping. Because the gerontology and social science literature tends to focus on informal assistance with activities that are believed to enable the elderly person to maintain independent residence in the community (Tennstedt and McKinlay 1989), the information on informal assistance provided for emotional support, companionship, and information is more limited than support provided because of health limitations. Most of the research on informal support focuses on assistance for personal care and instrumental activities.

RELIANCE ON INFORMAL SUPPORT

Studies suggest that *informal* social support is the primary type of support provided to older persons for personal care and instrumental activities. Data from the Longitudinal Study on Aging (1984-1990), a panel study of noninstitutionalized and institutionalized persons aged 70 and over (frail and not frail), provides a cross-sectional and longitudinal look at the distribution of informal and formal sources of caregiving. Caregiving assistance was defined as receiving assistance with ADL or IADL. Table 1 summarizes the findings. In 1984, 73.1% of Americans aged 70 and over received no assistance with ADL or IADL tasks. Of those who received any assistance, most received informal assistance only. Almost 20% of older Americans received informal assistance, 4.4% receive formal assistance, and 3.6% received a mix of informal and formal assistance. Over time, there was a linear increase in the proportion of persons receiving any assistance. Most of this increase was in formal assistance or mixed assistance over the six-year interval. As the elderly aged, their use of formal and mixed support increased.

Table 1. THE CAREGIVING NETWORK OF A COHORT OF OLDER ADULTS, 1984 to 1990

	1984	1986	1988	1990
No help	73.1	62.7	59.8	58.4
Informal help only	18.9	22.3	20.4	19.2
Formal help only	4.4	4.8	7.1	7.2
Mixed help	3.6	7.5	7.9	9.1
In nursing home	--	2.8	4.8	6.2

Note: Analyses are based on weighted data.
Source: Data are based on the 1984-90 Longitudinal Study on Aging (LSOA): Peek et al. 1997.

The gerontological and social work literature are replete with studies documenting the reliance of *frail* elderly on informal caregivers as compared with formal caregivers (Soldo 1984; Kane and Kane, 1987). Informal caregivers are more likely to be used and they contribute many more hours of care as well.

The Channeling Experiment provides a look at the distribution of informal and formal caregiving within a large sample of community-dwelling disabled elderly persons. The Channeling Experiment sample was moderately disabled[1] and had been referred to the study by hospitals, home health agencies, or other health or social service providers. Note that moderate disability indicates a higher level of frailty than the definition we use in the Demographic report and elsewhere in this report (at least one IADL or ADL). Despite their preexisting proclivity to use formal health or social support services, they still relied considerably on informal caregivers as well as formal caregivers. Table 2 presents the percentage of persons in this sample receiving formal care and two categories of informal care: visiting informal care provided by non-household members and resident informal care provided by household members, such as spouses. In this very frail, older population, about the same percentage of persons received formal care (60.5%) as received visiting informal or resident informal care (64.8% and 60.3% respectively). The number of hours of each type of care varied dramatically, however, with only 7.3 hours of formal care received on average per week, compared with 11.9 hours of visiting informal care and 27.0 hours of resident informal care. In total, almost 98% of the sample received some sort of care for an average of 46.4 hours per week.

Table 2. PERCENT DISABLED ELDERLY 65 AND OVER* RECEIVING CARE AND HOURS OF CARE RECEIVED, BY TYPE OF CARE

	Formal Care	Visiting Informal Care	Resident Informal Care	Total
Percent receiving care	60.5	64.8	60.3	97.8**
Hours per week				
Entire sample	7.3	11.9	27.0	46.4

*The average was 80 years
**Percent receiving *any* of the three types of care.
Source: The Channeling Experiment (Kemper 1992: Table 3).

While data for the Longitudinal Study on Aging and the Channeling Experiment were collected more than a decade ago, the overall patterns described appear stable. We would still expect the elderly's use of formal and mixed services to increase with age, and recent studies indicate that the frail community-based elderly continue to rely most on informal sources of care. A study based on data from 1993 Asset and Health Dynamics Among the Oldest Old (sample is 70 years or older) concluded that 60.3% of elderly with any ADL or IADL impairment received informal care and only 13.6% of these same people reported receipt of formal care (Norgard and Rodgers 1997).

Informal care is the dominant source of care provided, even in states characterized by a high number of social services for the elderly. One study examined the mix of informal versus formal services in a state (Massachusetts) with a very high number of social services targeted to older persons. In this setting, although a higher proportion of elderly persons utilized a mix of formal and informal care than in states with lower number of social services targeted to the elderly, over five times as much care was provided informally as was provided by formal sources (Tennstedt and McKinlay, 1989).

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[1] Defined as moderate disability in two or more ADLs or three severe impairments in IADLs, or two severe IADL impairments and one severe ADL disability.

Studies indicate that the frail elderly rely predominantly on *family and friends* rather than community volunteers for informal social support. Approximately three-fourths of the frail elderly receive all of their care from family and friends (Doty 1986). (The rate of informal care utilization shown in Table 1 refers exclusively to assistance received from a relative or friends accomplishing an ADL or IADL (Peck et al. 1997)). In addition to household assistance, meal preparations, and personal care tasks, such as bathing, toileting, and grooming (Soldo and Agree 1988), family and friends provide other support such as confiding, reassurance, respect, talking when upset, talking about health (Antonucci and Akiyama 1987). No studies have investigated the extent to which family and friends provide informational support, such as financial advice.

Table 3 shows the break-down of assistance with activities of daily living (IADLs) and instrumental activities of daily living (IADLs) that caregivers report providing. This table is based on a 1996 study of 1,509 caregivers of older persons in the United States, sponsored by the National Alliance of Caregiving (NAC) and the American Association of Retired Persons (AARP). It provides some insights into the type of care provided by informal caregivers (and hence the needs of care recipients). This study identified caregivers as persons who provide "unpaid care to a relative or friend who is aged 50 or older to help them take care of themselves." Caregiving "may include help with personal needs or household chores. It might be taking care of a person's finances, arranging for outside services, or visiting regularly to see how (the care recipient is) doing. This person need not live with (the caregiver)." Transportation, grocery shopping, and housework were the most common activities for which assistance is provided. The remaining types of assistance with instrumental activities were preparing meals, managing finances, arranging/supervising outside services, and giving medicine.

Table 3
PERFORMANCE OF IADLS

	Caregivers Providing Specified Assistance (Percent)
Transportation	79.3
Grocery shopping	77.3
Housework	73.6
Preparing meals	60.0
Managing finances	55.6
Arranging/supervising outside services	53.9
Giving medicine	37.3
No IADLs	2.0

Source: NAC and AARP, 1997.

Table 4 shows the distribution of caregiving that relates to various activities of daily living. Receiving assistance with any ADL by definition indicates a moderate to high level of frailty and is sometimes accompanied by depression or dementia. In this study, about 37% of care recipients received assistance getting in/out of bed.

Table 4
PERFORMANCE OF ADLs

	Caregivers Providing Specified Assistance (Percent)
Getting in/out of bed	36.8
Dressing	31.4
Bathing	26.6
Toileting	26.6
Feeding	19.2
Continence/diapers	13.6
No ADLs	48.5

Source: NAC and AARP, 1997.

INFORMAL CARE RECIPIENTS

How do individual characteristics of the frail elderly relate to patterns of informal support? The literature suggests that health status, residence, number and proximity of children, gender, race/ethnicity, and socio-economic status may be associated with receipt of informal social support.

Health Characteristics

Almost by definition, most older persons who receive informal caregiving have some type of functional limitation. Many need intense levels of care. In the 1996 study of caregivers sponsored by NAC and AARP, caregivers were classified according to caregiving demand or intensity as defined by services and time provided. At the lower end of the caregiving continuum, level 1 caregivers provided no assistance with *personal* care, and typically provided care for a maximum of eight hours per week. At the high end of the spectrum, level 5 caregivers assisted with at least two personal care tasks, and provided care for more than 40 hours per week. Table 5 shows the breakdown according to level in this caregiver sample. About one quarter of caregivers could be classified as level 1 or providing the lowest intensity and time providing assistance. Level 4, which was the second most intense level of caregiving contained nearly a quarter of respondents. The distribution of level of care indicates that there is a veritable continuum of care being provided informally, and that much of the care is demanding. Slightly more than 10% of caregivers could be classified into the most demanding level, providing more than 40 hours per week.

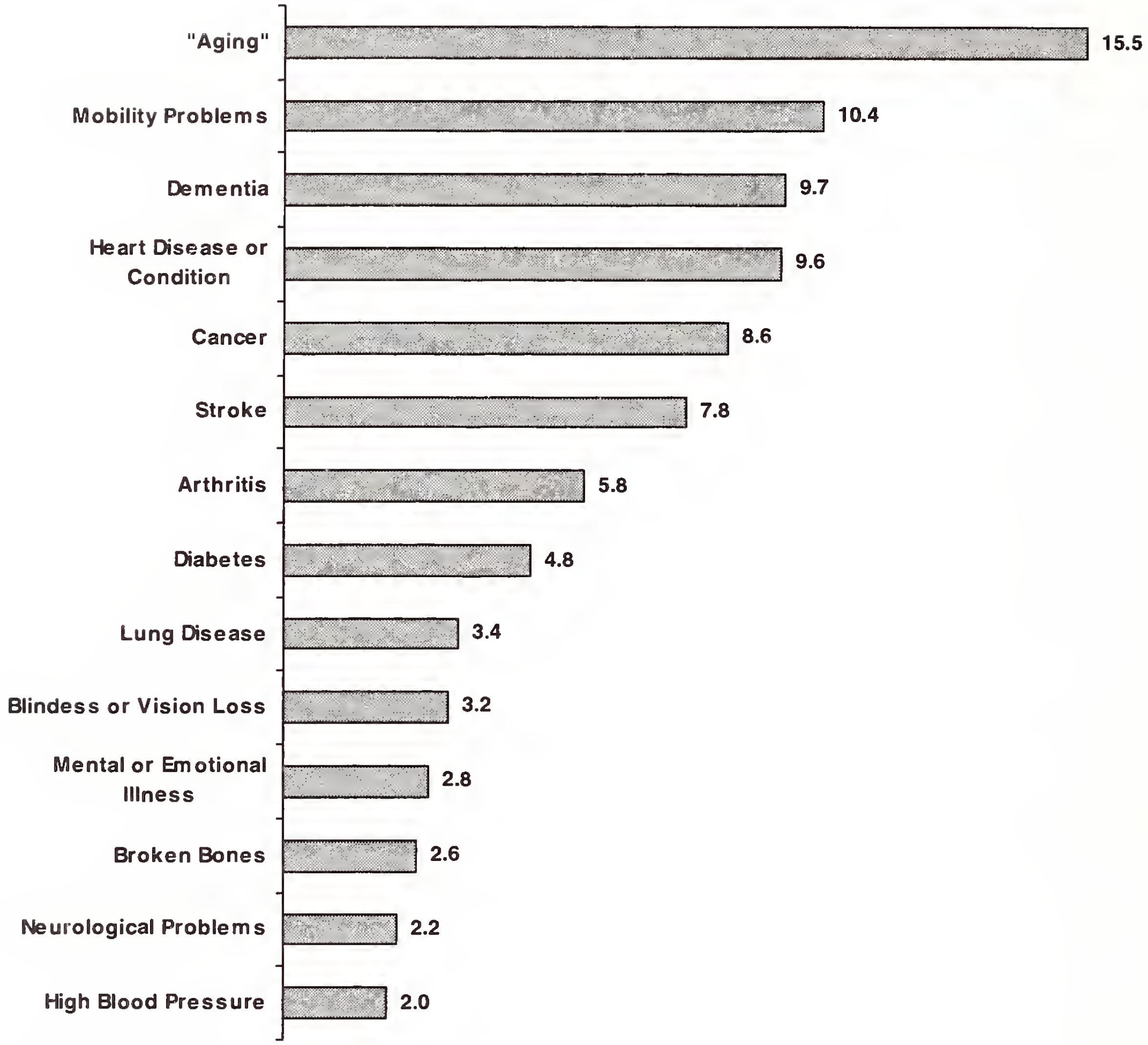
Table 5
CAREGIVERS BY LEVEL OF CARE

Level of Care Provided*	Percent of All Caregivers
Total	100.0
Level 1	25.8
Level 2	13.8
Level 3	19.0
Level 4	23.5
Level 5	12.3
Missing	5.6

* Levels are determined by a scoring algorithm that combined hours of care per week with types of care provided (i.e. number of IADLs and ADLs). Level 1 is associated with the least amount and intensity of care, level 5 is associated with the most and highest intensity of care. For more detail, consult Appendix in the NAC and AARP (1997) report.
Source: NAC and AARP, 1997.

Figure 1 shows the distribution of main health problems that require informal caregiving, as reported by these caregivers. The general process of 'aging' was the frequently cited health problem, followed by mobility problems, dementia, heart disease or condition, and cancer. In other words, care is being provided because of what are generally common conditions in later life.

Figure 1
MAIN ILLNESS OR PROBLEM OF CARE RECIPIENTS
(percentages)



Source: NAC and AARP, 1997.

Place of Residence

As discussed earlier, the frail elderly are more likely to receive informal support than formal support. An important exception are persons residing in semi-institutional settings, such as board and care homes, or institutional settings, such as long-term care facilities, where residents are more likely to rely upon formal support. A recent study investigated differences in receipt of formal versus informal care received in board and care homes (Hopp 1999). The sample was based on a seven-state study of board and care homes conducted in 1981. The nonrandom sample consisted of board and care residents in urban areas in California, Florida, Massachusetts, Minnesota, Texas, and Washington. This study found that formal helpers were the most frequent providers of assistance with ADLs, such as bathing and toileting, which require close proximity with the helper. Informal helpers were found to be more common providers of assistance with IADLs (such as shopping, transportation); i.e., activities that do not require close contact with the individual and involve leaving the board and care home.

Number and Proximity of Children

The availability of family and friends, either in or out of the household, appears to be one of the most important characteristics associated with receipt of informal care. One's situation with respect to children is particularly important. Approximately one in four persons aged 70 and over who live alone have no living children. Among those with children, the proximity of the children is a critical mechanism through which adult children are able to provide support. In a large, nationally representative sample of Americans aged 70 in 1984, the Longitudinal Study on Aging, almost half of those with living children had *daily contact* with their children and 86 percent had *weekly contact* with their children (Kovar 1988). Eighteen percent of elderly persons with a surviving child lived with a child (Crimmins and Ingegneri, 1990). Table 6 shows that two-thirds of the remaining elderly with at least one surviving child lived within 30 minutes of a child. Although we do not have more recent data on the proximity of children, we anticipate that the general pattern of relatively close proximity continues. The current generation of older parents tend to have a number of children among whom at least one is likely to reside near their parent. In perhaps the first national study of African-Americans, proximity was also found to be closely related to receipt of assistance from children among older African-Americans (Chatters and Taylor, 1993).

Table 6
DISTANCE FROM NEAREST CHILD (PERCENT DISTRIBUTION BY TIME) AMONG ELDERLY 70 AND OVER WHO HAVE A SURVIVING CHILD BUT DO NOT RESIDE WITH A CHILD

	1984
Within 10 Minutes	40
11-30 Minutes	26
31-60 Minutes	10
> 1 hour and < 1 day	20
1 day or more	5

Source: Crimmins and Ingegneri, 1990 (Table 2).

Speare et al. (1989) examined the correlates of receipt of informal versus formal assistance among older women in the Supplement on Aging study to the 1984 National Health and Interview Study. Women who lived alone received more help from children outside of the household than women who lived with others. Women who had no children, a potentially very vulnerable group, received less help with ADLs from relatives within and outside the household. In other words, other relatives (who are not husbands) do not fully compensate for the lack of children. This trend does not auger well for future cohorts of older persons that will have fewer biological children, or for the rising number of divorced men who tend to have less contact with their biological children. A recent small study of older stepfamilies commissioned by AARP found that 44% percent of divorced men (average age 66) who remarried reported that they had not maintained a close or satisfying relationship with their biological children from previous marriages. In contrast, virtually all mothers said they maintained a close relationship with their biological children following divorce (Vinick 1999). Simulations performed by demographer Kenneth Wachter (1998) show that by the year 2005, persons aged 70-85 years will have fewer adult biological children to be potential caregivers. However, he suggests that the growing number of stepchildren (due to higher divorce and remarriage rates among these cohorts) will provide a pool of potential caregivers for these persons. Currently, stepchildren (and step-grandchildren) do not tend to provide care to stepparents, but he argues that the future declines in biological children may lead to social structural changes in the role stepchildren play in caring for older and frail stepparents.

Gender

There are gender differences in the pattern of receipt of informal care from various types of care providers. Avery et al. (1989) employed data from the large, nationally representative Supplement on Aging to the 1984 National Health Interview Survey to investigate source and amount of help received among older persons with difficulties performing ADLs or IADLs. The authors concluded that disabled women receive more support than do disabled men. It is not clear from their analysis if this greater support is because women work harder to maintain familial ties or if it reflects women's higher probability of being older and unmarried and hence having greater disability and need. In a smaller nonrepresentative study, Antonucci and Akiyama (1987) examined differences in access to six types of social support (confiding, respect, talk when upset, talk about health, reassurance, and care when ill) between older men and women, aged 50-95. Women reported significantly larger support networks (including friends, spouse, and children) and received a greater amount of support from friends and family. Another major difference was that men report relying on their spouses, as opposed to children and friends, for all six types of support. Unfortunately, other types of support, such as talking about finances or health insurance were not included in this study so it is not possible to ascertain where men go for such advice. Within the network of family and friends, however, these findings suggest that older men rely on their spouses, while women rely relatively more on their children, followed by spouse, and friends for different types of support. Work is needed to examine the extent to which men and women consult family and friends for informational needs, versus non-family, yet informal sources of information.

Socioeconomic Status, Race, and Ethnicity

Are there differences in access to informal care by socioeconomic status, race, and ethnicity? Several studies conclude there are such differences in receipt of informal care.

A study based on a large nationally representative sample of U.S. households, the National Survey of Families and Households, documented socio-economic differences in receipt of social support in later life (Silverstein and Waite, 1993). Higher income and more educated older men were more likely to receive instrumental support than were lower income, less educated men. No income or education effects on receipt of instrumental support were found for women. A second study examined the predictors of the annual number of days a parent sees a child among persons aged 65 and over (Crimmins and Ingegneri 1990). This study was based on the 1984 National Health Interview Supplement on Aging (SOA). This study, which did not separate men and women, concluded that higher levels of education increase the annual number of days a parent sees a child. It is not clear if instrumental support was provided during these visits, but the number of days a child visits is an excellent proxy of potential support.

There is often a presumption that ethnic minorities, such as African-Americans, have a more 'energized' social support system that provides more informal support to older kin than non-Hispanic whites (Silverstein and Waite 1993). Recent studies fail to support this claim. The study based on the National Survey of Families and Households compared receipt and provision of social support among middle-age (40-64) and older (65 and over) African-Americans and non-Hispanic whites (Silverstein and Waite, 1993). They found little evidence that African-Americans have a more active social support network than whites. However, these findings were based on social support exchanged between non-coresident family members. To the extent that older ethnic minorities are more likely to reside with relatives, as older African-Americans do (Golant 1992), then the extent of informal support being provided to older ethnic minorities would be higher compared with non-Hispanic older whites. However, greater extent of co-residence of older parents with adult children among African-Americans may be a function of economic need (of children or parents) as much as, if not more, than of caregiving needs.

INFORMAL CAREGIVERS

Family and Friends

Families not only are the primary source of informal care, they are also the preferred source of caregiving (Tennstedt and McKinlay 1989). In particular, spouses are the most often preferred, followed by children and, last, other family members. Given the higher mortality rates of husbands and their slightly older age at marriage, wives tend to be the primary caregivers of disabled elderly. Caregivers of older disabled women tend to be adult children. Friends and neighbors are used when family is unavailable or may be used for supplemental services. Friends and neighbors appear to play a backup role, providing assistance with emergency or one-time tasks when family is otherwise available for more ongoing care (Kane and Kane 1987).

Using data from the National Survey of Families and Households (NSFH), the Office of the Assistant Secretary for Planning and Evaluation (1998) estimates that 52 million Americans (31 percent of all adults aged 20-74) provided informal care to a family member or friend who is ill or disabled. In other words, such caregiving is a part of life for a substantial minority of Americans. Eight percent of caregivers reported that they provided care to more than one person in the last year. In this study, most informal caregivers (38%) were adult children caring for older parents. Only an estimated 11% of informal caregivers were spouses. This figure underestimates the true extent of informal caregiving by spouses since spouses are probably unlikely to label what they do as 'caregiving.' About 20% of informal care was provided by other relatives, such as siblings, nieces, nephews, aunts and uncles, and about a quarter of informal caregiving was provided by friends and neighbors.

About 40 percent of NSFH respondents who reported providing informal care in 1987 also reported providing care in 1992, reflecting the long-term nature of much informal caregiving. It was not clear in this study whether caregiving continued to the same recipient or whether care was provided to a different recipient in 1992 than in 1987 (i.e. whether a caregiving episode tends to be long or whether caregivers tend to provide care to different people).

Figure 2 provides estimates of the number of informal caregivers of older persons in the United States based on the NAC and AARP study described previously. This study was limited to English-speakers so the estimates of total number of caregivers are conservative, particularly with respect to the number of Hispanic and Asian caregivers. There are more than 18 million white caregivers in the United States, over two million African-American caregivers, slightly more than one million Hispanic caregivers, and 400,000 Asian caregivers in the United States. The proportional difference across ethnic and racial groups does not reflect differences in propensity to provide care. Rather, it reflects differences in the racial and ethnic composition of older persons and their potential careproviders.

Although caregiving occurs at all ages, most caregivers are in their late middle-age years providing care to their parents (OASPE 1998).

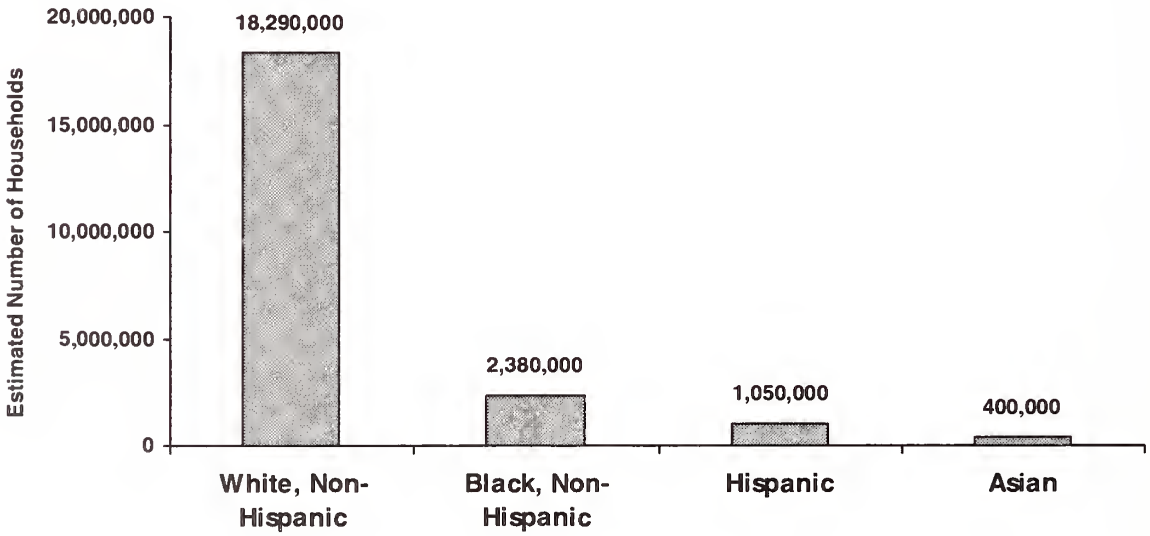
There are important gender differences related to informal caregiving. Although women are only somewhat more likely to provide any informal care compared to men, the amount of time women provide care is about

50% more than men provide (OASPE 1998). The time-disparity reflects differences in the types of service men and women provide. Men tend to provide assistance with home repairs, transportation, and financial management. Female caregivers tend to provide assistance with daily activities, such as personal care, housekeeping tasks, and meals (Tennstedt and McKinlay 1989).

Gender differentiation of caregiving roles, as described above for a primarily national white sample, persists cross-culturally. In Mexican-American families, men are expected to perform tasks related to family business, while women perform the instrumental tasks of caregiving (Cox and Monk 1993; Lim et. al. 1996). However, there may be generational differences in how closely caregivers adhere to these gender-specific tasks. In a small, nonrepresentative sample of white and Mexican-American caregivers, the most recent immigrants expected the greatest adherence to gender roles in caregiving while persons who had resided in the U.S. for a longer period time had less stringent expectations of who should help do what (Lim et al. 1996).

The current cohort of elderly are the parents of the baby boom generation. They are well-endowed with children to care for them in later life. However, the trend towards more women in the labor force that started with the baby boomers, along with their lower fertility rates, may compromise the extent to which adult children of baby boomers provide informal support to their baby boomer parents as they age. A potential mitigating factor to this trend is that increasing life expectancy will translate into increasingly older caregivers who themselves may be retired when their parents reach advanced age.

Figure 2
ESTIMATED NUMBER OF HOUSEHOLDS WITH ENGLISH-SPEAKING CAREGIVERS

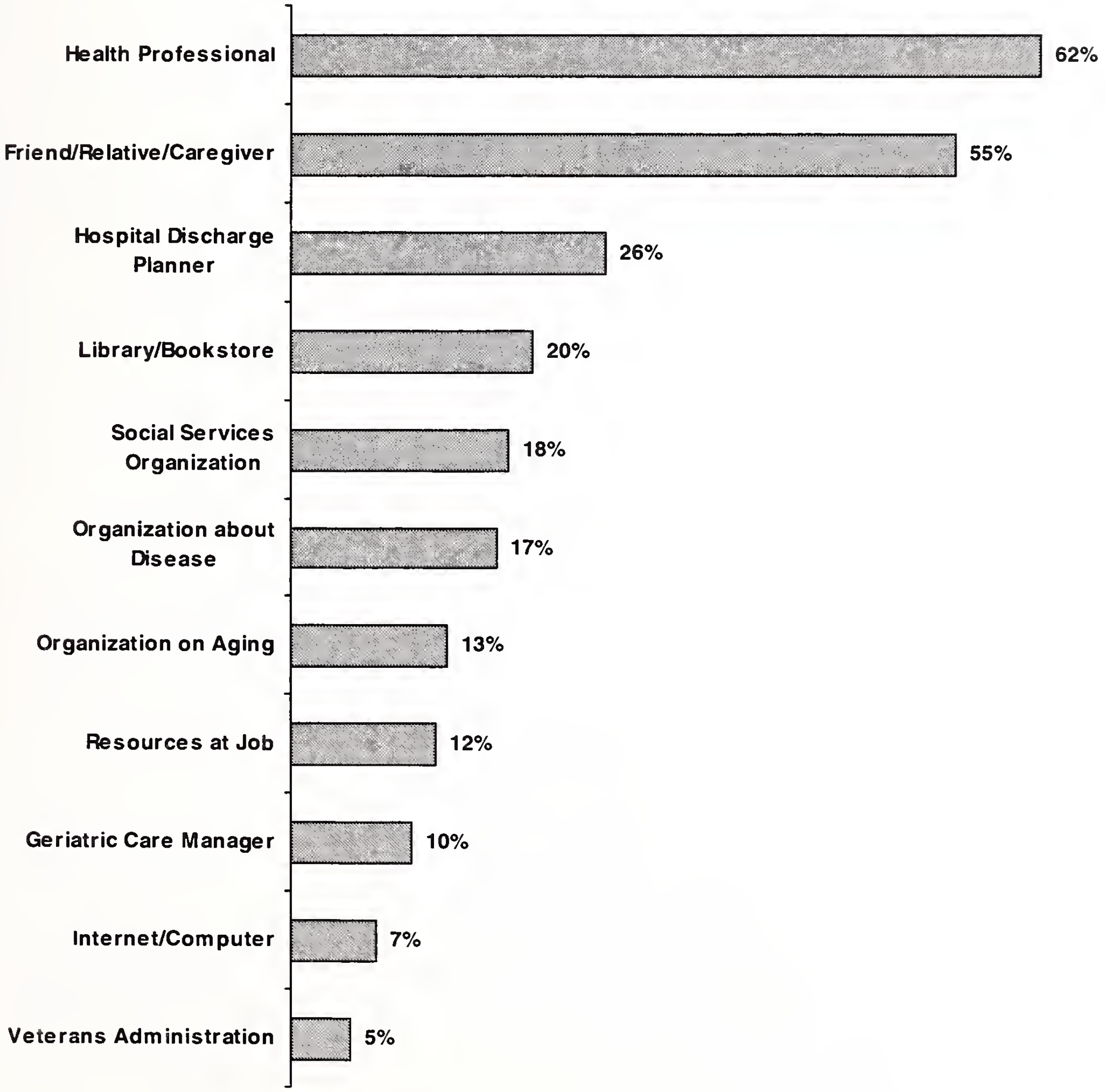


Source: NAC and AARP, 1997.

Sources of Information Used by Informal Caregivers

At least one study asked caregivers where they seek information about caregiving and health issues related to the care recipient. In 1998, the National Alliance for Caregiving (1998) and the Equitable Foundation conducted a national survey of Baby Boomer women caregivers. These women were asked about caregiving information they had sought along with information on planning for their own long-term care. Figure 3 shows the percentage of caregivers who sought information about caregiving from each of 11 sources. Health professionals were the most commonly sought (62%), followed by friends/relative/other caregiver at 55%. The next most commonly sought source of information was hospital discharge planner, library/bookstore, social service organization, organization about disease (such as American Heart Association), organizations on aging, job resources, geriatric care manager, internet/computer, and last, Veteran's Administration.

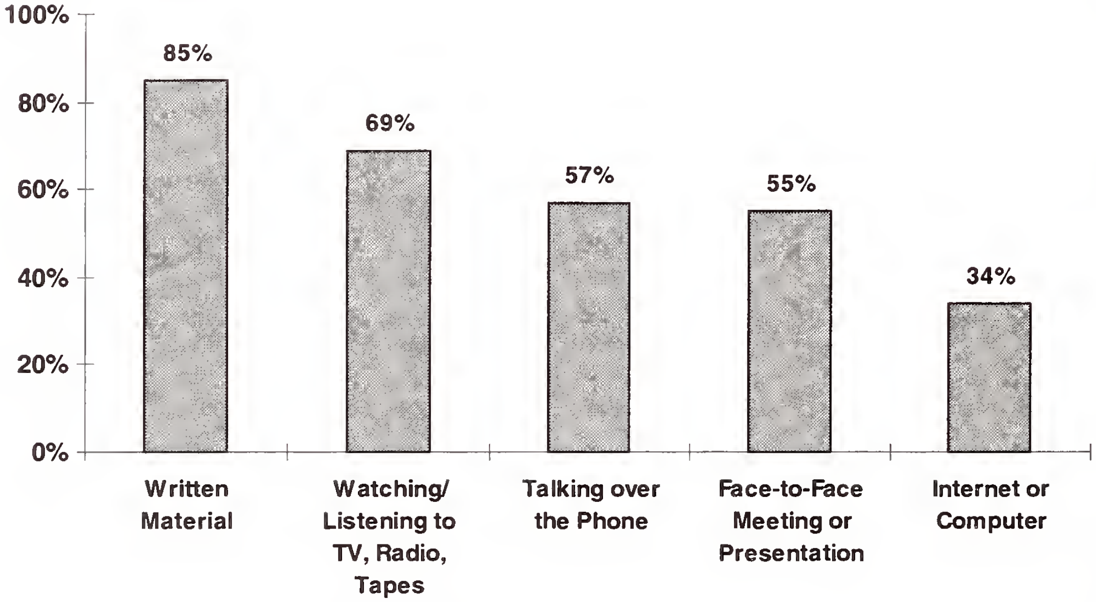
Figure 3
INFORMATION SOURCES CONTACTED



Source: National Alliance for Caregiving, 1998.

Respondents in the Baby Boomer women caregiver study were also asked about their preferred means of communication about caregiving and health issues (Figure 4). Multiple responses were permitted. Most women caregivers (85%) said that they preferred receiving written material, with nearly 69% saying they preferred information provided over the television, radio, tapes, or VCR. About equally mentioned was talking over the telephone and face-to-face discussions. The least frequently named preferred means was the internet or computer. This low use probably reflects the still low percentage of middle-age and older adults who own personal computers.

Figure 4
PREFERRED INFORMATION CHANNELS



Source: National Alliance for Caregiving, 1998.

Caregivers participating in the NAC and AARP national study of caregivers were asked what types of services they had used (Table 7). Almost half (46.7%) had acquired an assistive device, and over one third (37.8%) had obtained personal or nursing care services. Other services they sought out were home modification (28.1%), home-delivered meal services and assistance with housework (15.6%), followed by financial information and transportation services (~15%), respite care, adult day care/senior center, and support groups.

Table 7. UTILIZATION OF SERVICES (Base = Total Caregivers)

	Caregivers Who Had Used Specified Service (Percent)
Acquiring a wheel chair, walker, or other device	46.7
Personal or nursing care services	37.8
Home modification	28.1
Home-delivered meal services	15.6
Assistance with housework	15.6
Financial information service	15.5
Transportation service	14.9
Respite care	14.1
Adult day care/senior center	9.5
Support group	6.6

Source: NAC and AARP, 1997.

Community Volunteers

Churches/Temples

Religious organizations, such as churches and temples, are focal groups for communities and families. Often, these institutions are concerned with meeting the social and supportive needs of their constituents, including older members. For example, the organization United Jewish Communities (http://www.uja.org/ourmission/human.htm) is working on "innovative, cost-efficient programs for the frail elderly in such areas as shared home care and assisted living in senior housing." The LA Jewish Federation provides bereavement groups, retirement groups, caregiver support, aides to the elderly (including Alzheimer's Response Center for Families), transportation, elder care referrals, and a host of other services.

A substantial percentage of older Americans attend church or temple, making these institutions a potentially wide-reaching medium of communication. In a large nationally representative sample of adults aged 70 years or over (based on data from the Longitudinal Survey of Aging (LSOA)), 51% of older adults attended church or temple in the past two weeks (Choi 1994). The childless elderly and parents living apart from children were both more likely to report attending church or temple than were parents living with children. Since children living with parents is sometimes indicative of health problems of the older parent, lower rates of attendance may reflect greater functional or cognitive impairments. We do not have recent survey data on church attendance rates among older adults. More recent figures for all adults indicate relatively high levels of attendance (Smith 1998).

There are racial and ethnic differences in the frequency of attending church that may favor ethnic and racial minorities. In the nationally representative 1987 National Survey of Black Americans (NSBA), about half (53%) of the subsample of African Americans aged 55 and over reported attending services at least once a week, and most (83%) reported attending services at least a few times every month (Smith 1993).

Volunteer Organizations

It is not possible to list and describe all the major voluntary organizations that represent and assist older persons. In this section we focus on four major organizations (or types of organizations). These organizations were selected because of the breadth of their membership (AARP), their knowledge of and links with other organizations (United Way) or because they deal with specific groups of older persons which may be particularly difficult to reach (American Red Cross and homeless shelters). With the exception of AARP, these organizations do not make readily available the number of older persons they represent or assist.

The American Association of Retired Persons (AARP) is a nonprofit national organization representing midlife and older Americans aged 50 and over. AARP's primary focus is on information and education, community service, advocacy, and member services. Examples of their information and education activities include distribution of Modern Maturity and the AARP Bulletin (with a distribution of 32 million persons), news releases, and commission of studies related to its constituency. A recent AARP news release was entitled "Medicare Fraud: Who Pays? You Pay" http://www.aarp.org/press/1999/nr022499.html). AARP's community service activities include Tax-Aide, Women's Financial Information Program, Money After 50, National Legal Assistance Training Program, Senior Community Service Employment Program, Widowed Persons Service, and Connections for Independent Living (see http://www.aarp.org/what_is.html#community for descriptions of these programs and services). Member services include group health insurance, auto and homeowners insurance, legal services, and investment opportunities.

There are a host of local and national volunteer agencies and charities in the United States, many of which deliver services or information to the poor elderly. There are no national level statistics on the level of use of these services by older persons. One way to identify potential organizations is through local United Ways. The national United Way office distributes money to local chapters which in turn distribute monies to local volunteer and charity organizations. Since United Way is a major funder of local voluntary organizations, local chapters should have a comprehensive listing of local voluntary organizations, including those targeting the oldest and frail elderly.

Red Cross provides supportive and information services to military service members and their families worldwide and to veterans. In other words, services may be provided to both potential informal caregivers (who are military service members or a close relative) of older parents, as well as to older adults themselves if they are veterans. The Red Cross provides case management and communications in case of emergency to service members and families. It provides counseling to the family or service member in case of a hardship (which can involve older parents at home.) It also provides assistance and information to veterans about the Department of Veterans Affairs. Red Cross workers assist veterans in the preparation, development, and effort to obtain evidence to support claims for financial benefits through the Board of Veterans Appeals. Through the Veterans Administration Volunteer Services, Red Cross volunteers provide a number of support services to patients in Veterans Administration hospitals.

Homeless shelters deal with the hardest to reach older populations: the noninstitutionalized mentally ill and the very poor. Not only do the homeless often have little, if any, potential or actual informal caregivers, but they also tend not to utilize available formal care services. They may be reluctant to interact with institutions and the medical system because of previous negative experiences (HomeBase 1999). The prevalence of mental illness in the homeless population contributes to this reluctance. There are very few national statistics on the prevalence of homelessness at the national level. The range of estimates of prevalence of homeless among 55 to 60 year olds ranges from 2.5% to 19.4% (Institute of Medicine, 1988). A 1987 report by the National Coalition for the Homeless estimated that 15-20% of the homeless were aged 60 and over (U.S. Senate Special Committee on Aging, 1991).

Cultural Organizations

There are a variety of nonprofit cultural organizations that provide a host of services and information to different groups. An important characteristic of many of these organizations is that the services are provided in multiple languages. For instance, the Chinatown Service Center in Los Angeles, California provides services and information in different Chinese dialects, Vietnamese, and English. Provision of services in multiple languages is important for reaching the linguistically isolated who otherwise have limited access to information and social services. In Los Angeles, there are a variety of Asian Pacific Islander organizations, usually located in areas where their organizations' constituents are concentrated. These organizations represent first and subsequent generations of Koreans, Chinese, Filipinos, Vietnamese, and Japanese. Types of services provided by cultural organizations range from information about and referrals to social and health service agencies, to assistance with housing, social security benefits, public assistance programs, immigration, and public services. Some organizations advocate on behalf of clients or provide workshops and educational sessions on various topics of interests.

Frail Elderly and Over 85 — Report on Support Systems
RAND
1999

CHAPTER 4
FORMAL SUPPORT SYSTEMS

In this chapter, we overview the extensive formal support system available to some or all of the frail and oldest elderly in the United States. Broad types of formal social support systems in the United States include: paid home care, supportive living arrangements, professional health care, government programs, and information services. We describe the nature of each type of care, the characteristics of the users of these services, where known, and the characteristics of caregivers within each organization. Many of these formal services share the objective of enabling the frail to continue residing in the community when they are at-risk of institutionalization. This shared objective necessarily limits the majority of older persons who interact with most service providers and programs to those persons most at-risk of institutionalization.

IN-HOME CARE

Home health care services in the United States have increased dramatically in the past decade. This expansion has been fueled by several factors (Freedman 1999). First the number of home health agencies more than tripled between 1980 and 1994. In 1994, there were 9,800 home health agencies (Jones and Strahan, 1997). Second, there has been a change in the health care industry that has produced a shortening of hospital stays and a lengthening of post-acute services in the home. A third factor has been a change in the Medicare program itself that resulted in more Medicare enrollees being eligible for in-home care. At the same time, many states have changed their Medicaid programs to adopt the same or similar changes by setting up home and community-based waiver programs. The result of each of these shifts has not only been an increase in enrollees receiving home care, but also a shift from short- to long-term utilization of home care (Freedman 1999).

Support Provided

As with informal home care, most formal home care is for personal assistance and instrumental activities. Table 8 shows the percentage of persons receiving home care from home care agencies by type of IADL or ADL assistance received. Over three-quarters of the oldest-old who receive home care are being assisted with IADLs or ADLs, attesting to the level of physical impairment home care recipients suffer. Less than 10% of home care recipients receive care for IADLs only or one ADL. Most recipients need assistance with two or more ADLs.

Table 8. NUMBER AND PERCENTAGE OF CURRENT PATIENTS AGED 85 AND OVER RECEIVING HOME HEALTH CARE BY FUNCTIONAL STATUS: 1994

Functional status in ADL's or IADLS's[1]	Number	Percent
Received no help in either ADL's or IADL's	91,300	24.6
Received help in IADL's only	30,300	8.2
Received help in 1 ADL	23,600	6.4
Received help in 2 ADL's	65,400	17.7
Received help in 3 ADL's	87,200	23.5
Received help in 4 ADL's	49,400	13.3
Received help in 5 ADL's	23,500	6.3

[1] ADL is activities of daily living and IADL is instrumental activities of daily living.
Source: National Home and Hospice Care Survey: 1994 Summary (Table 12).

Table 9 describes the specific home care services provided to persons aged 85 and over in 1994, along with the type of home care provider. As testimony to the severity of health impairment of home care recipients, most services rendered were for skilled nursing (314,000) or personal care (176,900). The other most common services include homemaker/companion services and physical therapy.

Table 9. DISTRIBUTION OF SERVICES PROVIDED BY HOME HEALTH CARE AGENCIES TO PATIENTS AGED 85 AND OVER: 1994

Services	Number
Skilled nursing services	314,100
Personal care	176,900
Social services	29,900
Counseling	6,700
Medications	14,700
Homemaker/companion services	94,800
Physical therapy	68,400
All other services	28,500

NOTE: Services rendered to 370,600 patients.
Source: The National Home and Hospice Care Survey: 1994 Summary (Table 13).

Table 10. DISTRIBUTION OF HOME HEALTH CARE AGENCY PROVIDERS SERVICES TO PATIENTS AGED 85 AND OVER: 1994

Service Providers	Number
Registered nurse	315,000
Licensed practice nurse	45,700
Nursing aide	14,900
Home health aide	193,500
Homemaker/personal caretaker	51,300
Social worker	30,100
Physical therapist	67,600

NOTE: Services rendered to 370,600 patients.
Source: The National Home and Hospice Care Survey: 1994 Summary (Table 13).

Formal Home Care Recipients

In 1994, an estimated 370,600 persons aged 85 and over received services from home health care agencies. Using 1994 Census estimates of the size of the 85 and over U.S. population (3,542,000 as given at http://www.census.gov/population/estimates/nation/intfile2-1.txt), this figure translates into approximately 10% of the oldest old U.S. population. Referral patterns are such that most patients are referred to home health care following hospitalization in support of their recovery and physical rehabilitation efforts.

There is a small, distinct group of frail elderly who require home care services if they are to remain in the community. This group is dominated by older, unmarried, childless women (Chappell 1985). Studies indicate that advanced old age and living alone together influence the probability on relying on a mixed helper network (i.e. combination of paid home services and informal support) (Soldo, Agree, and Wolf 1989).

Despite assumptions by some that African-Americans rely more heavily on informal caregivers, results based on the most recent large, nationally representative study (the AHEAD study) of Americans aged 70 and over indicated no racial differences in formal in-home care services between African-Americans and whites (Norgard and Rodgers, 1997). Approximately 14% of both groups reported using any formal in-home care.

Formal Home Care Providers

Formal home care providers include professional and paraprofessional providers that provide care or assistance in the home. Services range from physician's services at one end to housekeeping and chore services at the other (Kane and Kane, 1987).

Table 10 shows that formal in-home caregivers include registered nurses, licensed practice nurses, nursing aides, home health aides, homemakers/personal caretakers, social workers, and physical therapists. In line with the dominance of skilled nursing services provided at home is the reliance of registered nursing as home care providers. They, in fact, provide 40% of this kind of care. Home health aides provide the next largest proportion (26%) of this care.

Approximately 80% of all home-health agencies are Medicare- and/or Medicaid-certified (Jones and Strahan 1997). Table 11 shows the distribution of primary source of payment among all patients receiving home health care from a home health care agency in 1994. In this table, the total number of patients refers to patients of all ages, not just the oldest old. Even in this all age group, most patients' (1,152,900) home health care services are primarily paid by Medicare. The next most common payer is Medicaid and private insurance.

A potentially nontrivial number of older households may rely upon paid independent or unaffiliated home care attendants. Households with impaired older persons may choose to hire an untrained person to provide home care assistance. Such care is probably less expensive that services provided through home care agency because the provider has no training or overhead expenses. Since such care would be provided out-of-pocket (no government or private insurer covers these services) this care is likely to be concentrated among middle- and higher-income households (or by their children). We do not know of any statistics documenting the extent of unaffiliated home care attendants.

Table 11. NUMBER OF CURRENT PATIENTS (ALL AGES) RECEIVING HOME HEALTH CARE BY PRIMARY SOURCE OF PAYMENT: 1994

	Primary Source of Payment at Admission							
Service and Service Provider	**All Sources**	**Private Insurance**	**Own Income or Family Support**	**Medicare**	**Medicaid**	**Other Government Assistance or Welfare**	**All Other Sources**	**Unknown or No Charge for Care**
All patients	1,889,400	136,600	73,400	1,152,900	284,500	78,400	50,200	92,300

Source: The National Home and Hospice Care Survey: 1994 Summary (Table 14).

SUPPORTIVE HOUSING ARRANGEMENTS

Support Provided

There are different types of supportive housing arrangements for elderly persons. Housing arrangements described here span the spectrum from resources and programs geared toward enhancing the adequacy of independent living to those providing intermediate and skilled nursing care. We briefly summarize the different levels.

Most of the support provided in supportive housing arrangements is for personal care and instrumental activities. Supportive housing arrangements sometimes provide information/consultation through housing-based vehicles like newsletters, bulletin boards, talks or programs in common areas.

Since some of the support housing arrangements we describe in this section are not certified, there is no central depository or listing of these communities. In some states, an agency compiles at least partial listings. For example, in California there is a registry of senior housing licensed by the California Department of Health Services that provides a partial, albeit spotty, listing of these types of housing (website: http://www.calregistry.com/default.htm). At the national level, the American Association of Homes and Services for the Aging (AAHSA) represents over 5,000 not-for-profit continuing care retirement communities, senior housing facilities, and assisted living and community services (webpage: http://www.aahsa.org/public).

Retirement Communities

There are age-restricted apartments and communities throughout the country that only accept people over some age, typically 55 years. Most of the apartments are privately owned although some fall under federal housing guidelines and only accept persons with low income. These retirement communities contain housing units that range from apartments, duplexes, trailer homes, to single family detached housing. Although age-restricted apartments and communities are intended for independent and healthy older persons, a number of them offer such services as on-site activities, transportation services, and communal dining halls.

Continuing Care Retirement Communities (CCRCs)

There are an estimated 900 continuing care retirement communities in the United States (Arizona Senior Academy 1999). The services provided in CCRCs include independent living (single-family detached homes, apartments, duplexes), common dining areas, assisted living, and nursing care. The idea is that residents can live out their lives in the community regardless of their health status.

Assisted-Living Communities (Board and Care Facilities)

State and facility policies determine the range of services provided in assisted-living communities (NASHP 1998). Some states permit varying degrees of in-home services, skilled nursing services, and supervisory care. Overall, assisted-living communities are targeted to persons with health problems that limit their ability to maintain a household but do not require large amounts of skilled nursing services. Currently, approximately 80% of assisted-living units are for single-occupancy studios, 1- or 2-bedroom units.

Assisted living residences provide supervision or assistance with activities of daily living (ADLs); coordination of services by outside agencies; and monitoring of activities of the resident to ensure the resident's health, safety, and well-being. Assistance with ADLs may include the administration or supervision of medication, or personal care services by a trained staff person. Assisted living residences typically do not provide continuous skilled nursing care although residences will assist in arranging the appropriate medical, health, and dental care services. Health care is generally provided by a physician selected by the resident.

Supportive Housing Residents

Retirement communities and apartments have age restrictions (also age 55) on who can own or lease property within the community. Both types of senior housing cater to persons who are able to maintain independent living (since limited services are provided) although individuals can arrange for assistance through home health care and other agencies for assistance when their health declines. With the exception of HUD housing for low income elderly, most such communities and apartments are affordable for middle or upper-middle income persons.

Given the promise of care until the end of life, the CCRCs are moderately expensive. In California, for example, entrance fees range from $10,000 to $500,000, with monthly fees ranging from $600 to over $2,000 a month. In other words, they are for the middle- and higher-income elderly. Generally, residents enter a CCRC when they are still active or require only limited assistance.

Although in many states Medicaid will cover assisted-living, generally assisted-living communities require that residents self-pay, at least initially. Once they spend-down, depending on state Medicaid rules and the community's policies, Medicaid will cover residency at a lower rate. At the current time, assisted-communities are largely targeted to middle- and upper-income older persons. It is anticipated that in the future, providers might start targeting lower-income residents by offering shared facilities.

Care Providers in Supportive Housing

Retirement communities and apartment complexes do not provide caregiving assistance. If a resident requires assistance, they must contract with outside caregivers.

CCRCs provide three levels of care – independent living, assisted living, and skilled nursing care. Thus, all levels of formal caregivers are provided, ranging from homemakers and personal care assistants, to registered nurses.

There is considerable variation in the levels of care states allow assisted living residences to provide. Formal caregivers employed in these facilities ranges from home makers to registered nurses, although the latter will be very few since only a few states allow assisted living communities to arrange for or provide health related services.

HEALTH CARE SYSTEM

Support Provided

Most frail and oldest old persons have some interaction with the health care system each year. In this section we summarize the extent of interaction with three levels of the formal health care system: inpatient services (or hospitalization), outpatient services, and long-term care facilities among Medicare beneficiaries. The data are from the 1994 Medicare Current Beneficiary Survey (Olin and Liu 1998). Where possible, we present figures for the oldest old and for all frail Medicare beneficiaries (defined as any IADL or ADL impairments).

Inpatient Services

A substantial minority of the oldest old and frail Medicare beneficiaries had at least one inpatient hospital stay in 1994. The first row of Table 12 shows the number and percentage of oldest old and frail (all ages) Medicare beneficiaries who had at least one inpatient hospital stay in 1994. About 1.1 million oldest old and 4.4 million frail beneficiaries had at least one stay, representing approximately 28% of both populations. In Table 12, we were unable to distinguish the frail group by age. The frail in this table is defined to mean all Medicare beneficiaries (including persons under 65 years of age) with at least one IADL or ADL.

Table 12. UTILIZATION OF INPATIENT AND OUTPATIENT SERVICES AMONG NONINSTITUTIONALIZED OLDEST OLD AND FRAIL MEDICARE BENEFICIARIES: 1994 (numbers in thousands)

	Oldest Old (85+)		Frail (All Ages)	
	Number	%	Number	%
At least one inpatient hospital status	1,076	27.9	4,428	27.8
At least one outpatient hospital visit	2,280	59.1	10,791	67.7
At least one physician/supplier service	3,699	95.9	15,239	95.7
At least one dental service	1,084	28.1	5,017	31.5
At least one prescribed medicine	3,324	87.2	14,437	90.6

Sources: Tabulations performed at RAND based on 1994 Medicare Beneficiary Survey (Olin and Liu 1998: Tables 2.1, 3.1, 3.2, 3.3, 3.4, 3.5).

Outpatient Services

The number of oldest old and frail Medicare beneficiaries who had some type of outpatient contact with the health care system is higher than the number with inpatient stays. About 2.3 million (59.1%) oldest old and approximately 10.8 million (67.7%) frail beneficiaries had at least one outpatient hospital visit in 1994. About 30% of oldest old and frail beneficiaries had at least one dental service. Nearly all oldest old and frail beneficiaries (about 96%) received at least one physician/supplier service in 1994. A physician/supplier service includes medical doctor, osteopathic doctor, and health practitioner visits; diagnostic laboratory and radiology services; medical and surgical services; durable medical equipment; and nondurable medical supplies. Health practitioners include audiologists, optometrists, chiropractors, podiatrists, mental health professionals, therapists, nurses, paramedics, and physician's assistants. Most beneficiaries also received at least one prescribed medicine in 1994. Contact with the health care industry is extremely high in this population.

Long-Term Care Facilities

A large number of the oldest old and frail Medicare beneficiaries reside in a long-term care facility at least once a year. Long-term care facilities are distinguishable from supportive living arrangements described previously in that skill nursing care and some physician care are provided. Among Medicare beneficiaries aged 85 and over, about 900,000 (~23%) lived in a long-term care facility for the entire year of 1994, and 251,000 (~6.5%) lived in a long-term care facility for at least part of the year.

Professional Health Care Recipients

Americans who are 65 years old or over, who are disabled, or have permanent kidney failure are, with a few exceptions, Medicare-eligible. In 1998, 33.8 million 'aged persons' were Medicare enrollees (HCFA 1999a).

Low- and high-income Medicare beneficiaries have different patterns of utilization of professional health care. Low-income beneficiaries are more likely to have inpatient hospital and long-term care facility stays; high-income beneficiaries are more likely to use outpatient services and physician/supply services (Olin and Liu, 1998).

Medicaid covers most individuals who receive federally-assisted income maintenance programs as well as certain other low-income groups (i.e., categorically needy), such as Supplemental Security Income (SSI) recipients or the aged, disabled, or blind who have income below the poverty-threshold may receive Medicaid. Eligibility-criteria vary by state. In 1997, nearly 4 million persons aged 65 and over were Medicaid recipients (HCFA 1999b).

Medicare has two parts. Medicare Part A covers inpatient hospital services, skilled nursing facilities, home health services, and hospice care. Part B assists with the costs of physician services, outpatient hospital services, and medical equipment and supplies. Medicaid covers the above services with greater coverage of skilled nursing facilities and home health services. States also have the option of covering other medical services, such as dental services, clinic services, optometrist services, and prescribed drugs.

Professional Health Care Providers

Professional health providers who provide inpatient and outpatient services are highly trained professionals, such as doctors, osteopaths, registered nurses, physician's assistants, opticians, pharmacists, speech therapists, audiologists, and physical therapists. The staffing of skilled and intermediate nursing facilities is more varied. At the low end are paraprofessionals, such as nurses' aides, who tend to be paid minimum wage and have low levels of education and little or no formal training. Nurses' aides spend the most time with patients (Kane and Kane 1987). At the high end of the staffing spectrum are the registered nurses, nurse practitioners, pharmacists, and medical directors. Other professionals include social workers and physical therapists.

GOVERNMENT PROGRAMS

Older American's Act

The Older Americans Act of 1965 (OAA) calls for a range of in-home and community-based services and opportunities to persons 60 and over, particularly for those at risk of losing their independence. The national Administration on Aging works with State Units on Aging (a.k.a. State Agencies on Aging) and Tribal organizations to plan, coordinate, and develop community-level systems of services to meet the needs of older persons. In most states, the State Agencies on Aging disburse State funds to Area Agencies on Aging (AAA). Nationwide, there are 655 AAAs which oversee the coordination of supportive services, senior centers, and nutrition centers to the local elderly population. There are over 27,000 service providers contracting with AAAs nationwide (AOA 1999).

OAA Support Provided

The range of services indirectly and directly provided through AAA's is broad, but falls into four categories: in-home services (chore, home-delivered meals, home repair, rehabilitation and modification, homemaker-home health aide and personal care); caregiver services (respite, counseling, and education); access services (information and assistance lines, transportation and case management); and community services (congregate meals, day care, nursing home ombudsman, elderly abuse prevention, legal services, employment counseling and referral, health promotion, and screening and fitness programs).

As described in the National Asian Pacific Center on Aging (NAPCA) report, Asian and Pacific Islander Elders: A Report on Formal and Informal Support Systems, each State also has established an Information and Assistance (I&A) program in each county or service area that functions as a referral source for older persons and their families (NAPCA 1999). These programs are administered by private agencies or in some cases by AAA directly. I&A programs provide information on, among other issues, Social Security and Medicare.

The Older Americans Act helped promote multipurpose senior centers. Since their inception in 1940 as sites for recreation and nutrition, senior centers have evolved to be focal points for comprehensive delivery of social services. Focal points refer to facilities that provides information and assistance services and houses these services in the same location used by other providers of services to seniors. In 1995, there were 11,463 recognized senior centers, with 6,397 (55.8%) of them receiving some OAA funding. Most focal points identified by states were senior citizens centers (AOA 1999).

The typical senior center may provide the following services related to daily living assistance (e.g. meal and nutrition programs and transportation services) and information and consultation (e.g. health and wellness programs, recreational opportunities, volunteer opportunities, social and community action opportunities).

OAA Support Recipients

Several studies indicate substantial variation in utilization of the types of services covered by OAA. For example, older minorities, including Hispanics, have lower utilization of formal services than non-Hispanic whites (Yeatts, Crow, and Folts 1992). A qualitative study of why Mexican-Americans aged 60 and over underutilize social services, such as those provided by OAA, was recently conducted in collaboration with a North Texas Area Agency on Aging (Torrez 1998). The set of interviews with older Mexican-American adults revealed that they had a difficult time accessing formal services without assistance and thus the services were unable to meet their social, health, and transportation needs. Although these participants reported that they were in contact with their adult children, the economic and time constraints of their adult children prevented the children from assisting the parents in accessing services. These constraints may be interfering with the traditional and anticipated reliance of older Mexican-American parents on adult daughters and daughters-in-law. The rising rate of single-parent families and increased labor force participation of Mexican-American women is believed to be important factors contributing to the time and economic constraints of the daughters.

Other work documents the importance of awareness of community resources in the ability of older adults to access these resources (Spence and Atherton 1991). Most of this research focuses on African-Americans, and to a lesser extent Latinos. Other groups, such as specific Asian Pacific Island groups, like Koreans, have been studied less often but the few studies that have been conducted indicate low levels of awareness of programs among these groups (Moon, Lubben, and Villa 1998). For instance, a recent study compared the knowledge of Korean American and non-Hispanic white residents of a Los Angeles community about 15 types of services. Korean Americans had very low awareness of most services. Excluding senior citizen centers and transportation services, only 2.3% of Korean Americans versus 47.1% of non-Hispanic whites had ever heard of the other 13 services. These services included Meals on Wheels, group meals outside of home, advice about nutrition, homemaker service, visiting nurse service, health aide, adult day care, geriatric day rehabilitation center, legal services for the elderly, hospice, long-term care management services, and mental health services (Moon, Lubben, and Villa 1998). Tellingly, Korean Americans who had ever heard of these services were more likely to utilize the services than their non-Hispanic white counterparts, suggesting that lack of knowledge of services is a barrier to access. If Korean-Americans had the same level of awareness as their non-Hispanic whites, they would use services at a higher level than whites. An important exception, however, was use of senior centers. Less than half the percentage of Korean Americans who had heard of the senior centers used them as did non-Hispanic white older persons. The most commonly cited reasons for not using the centers were language and cultural barriers.

All individuals aged 60 and over are eligible for OAA services although priority is given to those with greatest economic and social need. In 1993, over 800,000 persons received transportation services. About 19% were minority and 39% were low-income. Approximately 126.3 million congregate meals were served to 2.4 million older persons of whom 28 percent were frail and disabled; 47 percent were low-income; 42 percent were rural residents; 18 percent were minority; and 13 percent were low-income minority. 102.5 million home-delivered meals were served to some 794,500 persons of whom 77 percent were frail and disabled; 45 percent were rural residents; 19 percent were minority; and 15 percent were low-income minority (AOA 1999b).

OAA Support Providers

In most states, the OAA contracts with private or public groups to provide services. These services are rendered by the types of paraprofessionals and professionals that staff the agencies that provide these services. In addition, volunteers, many of them older participants in OAA programs themselves, are an integral part of the OAA service system.

Veterans' Administration

Support Provided

The Veterans' Administration (VA) provides inpatient and outpatient health services, nursing home care, domiciliary care, and home improvements and structural alterations of the home for veterans who meet certain service and/or financial eligibility criteria (Department of Veterans Affairs, 1999). The VA also finances a number of long-term care programs in the community, including homemaker/home health aide services, and adult day health care.

For veterans eligible for Medicare, Medicare is the primary payer even when services are rendered by the VA. Services provided are for health care and assistance with daily living. Some information and consultation, from medical professionals and social workers, are also provided.

Support Recipients

In 1999, there were nearly 9 million veterans aged 65 and over (comprising slight more than 26% of the total 65+ population) (DVA 1999a). The priority groups are service-connected and low-income veterans.

Support Providers

The VA health care system is large. There are approximately 200,000 VA staff nationwide in 173 VA hospitals, 600 ambulatory and community based clinics, 173 nursing homes and domiciliaries, 206 counseling centers, and 73 home health programs (DVA 1998). These facilities are staffed by professionally trained staff in their respective areas.

INFORMATIONAL SERVICES

In this final section of formal support services, we discuss sources of information. While these sources of information are not generally considered formal support services, they function in support of elderly people's decisions and actions.

Media

Where do older adults go for their media coverage? One study conducted by Louis Harris and Associates poll (National Academy on the Aging 1975) concluded that television was the most commonly used media and books and magazines were the least common. Older persons seems to particularly favor television for their news coverage.

Chafetz and colleagues (1998) updated this earlier study focusing specifically on the utilization and perceived quality of news coverage. They asked a large sample of persons aged 55 or older (89% of the sample was 65 or older) how many days a week they read 1) newspaper headlines, 2) newspaper front page, 3) watch at least one TV news program, and 4) listen to at last one radio news program. As with the earlier NCOA study, most (85.1%) reported that they watch at least one TV news program five to seven days a week (Table 13). The next most commonly reported form of news was newspaper headline (62.5% report reading news headlines 5-7 days a week), followed by newspaper front page (58.8%) and radio news program (40.0%). Radio news programs are the least utilized medium with 41.5% of respondents saying they listen 0-2 days a week. Unfortunately, respondents were not asked about the relatively new medium of communication, the internet or computer.

Respondents in the Chafetz et al. study were also asked how interested they are in news stories about older people. A full 65.8% say they are very interested in such stories; only 6.0% say they are not interested.

Table 13. NEWS UTILIZATION RATES AND PERCEIVED QUALITY OF COVERAGE

Question	Response		
How many days each week do you ______?			
	0-2	**3-4**	**5-7**
read the newspaper headlines	24.7	12.8	62.5
read the newspaper front page	27.0	14.2	58.8
watch at least one TV news program	6.0	8.9	85.1
listen to at least one radio news program	41.5	18.5	40.0
How interested ___ in news stories about older people?			
	Very	**Somewhat**	**Not Very**
are you	65.8	28.2	6.0

Source: Chafetz et al. 1998.

The Chafetz et al. 1998 study investigated variations in older (55+) people's use of various news media. Overall, there were some differences between men and women. Men were more likely to read the newspaper headlines and the front page five or more days a week. Also, persons with a high school education were more likely to read the headlines and front pages than persons who had not completed high school. Among men, those with a high school education were more likely to watch a television news program than those with less education; there were virtually no differences by education for women. There were significant education effects on the frequency of listening to radio news programs, with those who went beyond high school significantly more likely to listen than those who did not. The general conclusion is that men are slightly more likely to seek out news shows and stories than women, and more educated older persons are significantly more likely to seek out each of various types of news stories than the less educated (Chafetz et al . 1998).

Formal Information Support

Major health insurers, including Medicare, Medicaid, and the large health insurers, like Blue Cross and Blue Shield, provide information related to all aspects of consumers' health coverage. The means of distributing this information include the internet, the work place (for employer-based insurance coverage), over the phone, and publications sent directly to consumers. Examples of publications put out by Medicare include the *1999 Guide to Health Insurance*, *Medicare & You Handbook,* and *Medicare Fraud and Abuse* (for more complete examples, see http://www.medicare.gov/publications/engprint.html). Major insurers also regularly produce publications to disseminate information related to health coverage.

Likewise, for-profit and nonprofit health insurance providers disseminate information related to their insurance policy as well as information on Medicare to older members (or those with Medicare supplemental insurance). For example, Blue Cross of California provides definitions of Medicare terms to members with Medicare supplemental plans.

Financial advisors work with clients in financial and estate planning. Some financial advisors specialize in Elderly Planning which is specifically concentrated in estate planning, pension distributions, Medicare and

Medicaid (Ryan 1998). Life Care Planners are another type of specialist who deal specifically with the needs of older and disabled clients. Life Care Planners (LCP) assist disabled and geriatric patients in determining their future monetary requirements over their expected lifetime (Smolarski 1997). They often work in conjunction with trust officers, estate planners, and attorneys. Organizations representing financial planners can assist in educating planners and locating those planners that specialize in Elderly Planning or estate planning. Examples include the American Institute of CPAs, the International Association for Financial Planning (IAFP) and the National Association of Personal Financial Advisors.

Financial planners tend to be used when there is a sizable estate. A recent article for Elderly Planners recommends that planners target middle-sized estate clients with net worth between $500,000 - $1,000,000 (Ryan 1998). Older persons and their adult children with lower incomes or who prefer to do their own planning may consult magazines or books in estate and related issues. A recent article published in the newsletter *Generations* (Sherman 1997) provides a comprehensive listing of sources of help in financial preparation for retirement planning for older persons and their adult children. These sources range from software, to magazines and books, to organizations of financial planners, attorneys, and retired persons.

Attorneys may be viewed as authoritative sources of information regarding legal and health care. There are two American Bar Association (ABA) bodies devoted to issues of older persons. The ABA's Commission on Legal Problems of the Elderly is a 15-member multidisciplinary teams that includes lawyers, judges, physicians, professors, aging network leaders, and advocates for older persons. The commission is charged with examining law-related concerns of older persons. The ABA also has a Commission on Law and the Elderly that puts out publications dealing with elderly-specific issues (ABA 1998). The ABA Commission has already discussed and proposed recommendations dealing with dispute resolution in the health care arena more generally, including due process requirements in managed care grievance and appeals systems (ABA 1999). The ABA recommends that older, frail, disabled, and chronically ill enrollees be assisted through education and ombudsman programs and accessibility to resolution dispute programs.

At least two additional national associations are concerned with the legal rights of the elderly: the National Academy of Elder Law Attorneys and the National Senior Citizens Law Center. The first includes attorneys who work with relatives of older persons who live far away. This organization might provide a springboard for delivering information to caregivers rather than the elderly themselves (web homepage is http://elderhelper.com/m_legal.html). The second organization works with legal services offices, senior organizations, and other advocates to provide policy guidance and counsel on issues related to older persons (web homepage is http://nsclc.org/main.html).

Employment situations also may provide some information support, particularly for caregivers. Some employers offer seminars on retirement issues for their employees who may be the adult children of oldest old or disabled parents. Retirement plans, such as Fidelity Investments and TIAA-CREF, utilized by employers distribute retirement packages, newsletters, and other publications to current employees and to retired employees. Unions and credit unions may offer similar information to members.

For adult children who are dealing with financial, estate, or caregiving issues related to oldest old or frail parents, some employers offer formal Employee Assistance Programs (EAP) which provides counseling for a range of personal problems. The EAPs are often contracted out to organizations which provide referral and counseling services.

CHAPTER 5
CONCLUSIONS

INFORMAL AND FORMAL SUPPORT TO THE FRAIL AND OLDEST ELDERLY

This report described the major types of informal and formal social support systems available to the frail and oldest elderly. When possible, variations in patterns of care receipt and care provision were described. In this section, we summarize what we know about informal and formal sources of support.

Informal Caregiving

In terms of proportionate amount and time, most care provided to the oldest old and frail elderly in the United States is given by informal sources of support. Informal caregivers are usually spouses or family members (frequently adult children) of the care recipient, but may also be friends and neighbors or volunteers from local charitable or religious organizations.

The types of informal caregiving rendered are dependent on the health status of the care recipient and on the relationship between recipient and caregiver. Intensive types of informal care are usually rendered by caregivers closest to the recipient. For example, for the very frail, spouses or adult children (usually daughters) may step in to assist with very intensive assistance with activities of daily living, such as bathing, dressing, or eating. More distant members of one's social network, such as grandchildren, friends, and neighbors may be less willing to provide close and intensive services, but are willing to provide less intense services such as transportation and housekeeping chores or one-time tasks like home maintenance tasks. In other words, most of the moderately frail who require intensive assistance to maintain independent living status must have a close co-resident or nearby relative willing and able to provide care. The less frail who require less intensive services are able to draw upon both close and less close social ties for assistance, if available. Weak ties can limit the extent and nature of caregiveing.

Other types of informal caregiving we described include churches and other voluntary organizations, the largest of which is American Association of Retired Persons. Although these informal caregivers do not work closely or intensively with care recipients as a rule, these organizations reach a very large proportion of older persons. About half of Americans aged 70 and over attend church or temple every two weeks; all Americans aged 50 and over are eligible to join AARP. Moreover, these organizations (such as AARP) reach many of the adult children caregivers of the oldest old and frail elderly, since they themselves are generally in mid-life.

Other voluntary organizations that potentially provide informal caregivers serve smaller niches of the vulnerable elderly. These include American Red Cross (serves military service members and their families and veterans), homeless shelters, and cultural organizations. Although these organizations target smaller groups, these are among the potentially most isolated subpopulations (i.e. very poor elderly with no family, the mentally ill, and non-English speakers). These organizations are among the very few, if not only, types of organizations that specifically cater to their respective niches.

The widespread dependence on family and friends for support may provide important buffers for the oldest and frail elderly. These buffers may be particularly important to those who lack the resources to purchase formal care but are ineligible for same of the governmental services.

The largest bulk of informal care is provided by family, friends, and neighbors who are not formally trained in caregiving and are geographically, socio-economically, culturally, and linguistically dispersed throughout society. As caregivers, they are not organized into entities with centralized mechanisms of communication.

Formal Support Systems

Formal support systems described in this document run the gamut from paid nursing care and physician services to unaffiliated, unskilled home care workers, to informational sources, such as the media and financial advisors. Paid personal and medical care can be costly to care recipients or their families unless the care is covered by Medicare, Medicaid, or private insurance. Most Medicare recipients, as we saw, have at least one interaction with the formal medical care system; 96% of oldest old and frail (all ages) beneficiaries had at least one physician or supplier service in 1994 and nearly 90% of both sets of beneficiaries obtained at least one medication through a pharmacy (Table 12). The remaining types of formal support sources are less unanimously utilized by the frail and oldest old.

A number of formal support systems provide assistance with instrumental activities of daily living and activities of daily living. Perhaps the most organized of these systems are the services coordinated by local Administration on Aging offices as mandated by the Older Americans Act. OAA supported services include senior citizens centers, congregate and home-delivered meals, and home care and homemaking services. Many of these services are rendered through local contracting agencies. OAA services target the poor who are considered at risk of losing their ability to live independently.

A variety of in-home support is available for purchase to persons who can afford to do so. For middle- and higher- income older persons, there are a variety of supportive living arrangements that can provide a range of types of assistance with health and instrumental care. At the lower end of assistance provide are retirement communities and apartments which may provide transportation services or congregate meals. At the highest level of assistance are assisted living communities which can arrange for and, in some states, provide instrumental assistance. Continuing Care Retirement Communities provide multiple levels of care, including skilled nursing services.

Providers of formal assistance with instrumental, personal, or health care range from untrained and unskilled paraprofessionals (such as unaffiliated home aides) to highly trained and skilled professionals such as registered nurses, physicians, and pharmacists. For some of these service providers, there are organizations representing providers (such as the American Medical Association, nurses' unions); for others, there are agencies which employ care providers (e.g. home care agencies, long-term care facilities); yet other types of providers are unaffiliated (such as home care workers/home makers).

Gaps in Support

To understand who potentially has the least amount of social support, i.e. is the most socially isolated, it is useful to consider who has the least amount of actual or potential informal caregiving. Among persons who receive any assistance with ADLs or IADLs, about 71% receive assistance from informal caregivers only. Therefore, identifying the persons most likely to be frail and isolated requires considering who is least likely to receive informal support. Moreover, among persons receiving informal and/or formal care, more hours of caregiving are provided by informal caregivers than formal caregivers.

Most informal caregivers are family, in particular spouses (wives) and adult children. Friends and neighbors provide support, but generally do so as a last resort or for one-time tasks. Thus, persons who are most likely to lack potential and actual informal caregivers are elderly persons who are unmarried and childless or in infrequent contact with adult children. The two largest groups that fall into this category are elderly unmarried childless women and unmarried childless men. Among men, there is an additional at-risk group consisting of men who may have children, but have divorced the mother of their children.

Income can mediate the isolation of older, childless men and women. The well-off can purchase home care. At the lower end, while there are a spectrum of services to assist people (including OAA services, VA, Medicaid, church/volunteers) they require that the older person have preexisting social connections with these organizations prior to health deteriorating or have contact with friends/neighbors who can help.

There is a second group of people that are potentially disconnected from formal types of social support although they may have at least some informal social support, be it spouse, children, or other family members. These are the linguistically or culturally isolated who are reliant upon others (such as family or cultural organizations) to interact with social and medical service organizations in order to meet their needs. Isolation can be particularly acute for non-Hispanic persons since many organizations routinely provide information and services in Spanish or English. Moreover, there often is a problem of cultural distrust of large organizations among a number of foreign-born and ethnic groups.

Table 14. ESTIMATES OF POTENTIALLY SOCIALLY ISOLATED PERSONS AGED 65 AND OVER, 1998

	AGE		
Group	**65 and Over**	**75-84**	**85+**
Single and divorced/separated men	--	349,000	91,000
Never married women	--	340,000	106,000
Linguistically isolated*	1,010,000	--	--

Sources: Table 1, "Marital Status and Living Arrangements: March 1998 (Update)" (Current Population Report P20-514) and Table 14 in RAND's "A Demographic Profile of the Frail Elderly and Over 85 Population in the U.S."

Table 14 shows a crude estimate of groups who we have identified as potentially socially isolated, by age. We do not know the specific number who are frail or advanced in age in any of these groups. These data are based on estimates from the 1998 Current Population Survey and the 1990 U.S. Census. Never married (single) and divorced or separated men are at risk of living alone and not having biological children, or if they have biological contact, not having a close or satisfactory relationship with their children. In other words, these men are most at risk of not having potential sources of support. Among these men, those with lower-income are at even greater risk unless they are hooked into a social network that can assist them in obtaining informal care from voluntary organizations or formal assistance from Medicaid or OAA services. We estimate there were 349,000 such men aged 75-84 and 91,000 men aged 85 and over in 1998.

The second class of potentially socially isolated women are the never married women. Given the very low rates of nonmarital fertility within these age cohorts, most of these women are probably childless, and, if they are residing in the community, are living alone. Moreover, these women do not have access to their husbands' pensions and, thus face an even greater risk of poverty than their widowed counterparts. In 1998, there were 340,000 never married women aged 75-84 and 106,000 never married women aged 85 and over.

In RAND's Demographic Profile (Beckett and Pearson, 1999), we estimated that there were approximately 1 million linguistically isolated persons aged 65 and over in 1990.

IMPLICATIONS FOR COMMUNICATIONS

The assumption underlying this social support report is that the type and extent of support available and utilized affect people's communication. They may affect people's communication needs, particularly with respect to rights and protections. They indicate personal points of contact with the larger world, and, in so doing, they suggest possible conduits and channels for information. They may in some cases provide mechanisms for assistance in utilizing information.

That so many frail and older elderly appear to rely on family and friends suggests that these informal caregivers, particularly spouses and adult children, are critical links in the effective communications and exercise of Medicare rights and protections. The findings on the kinds of support they lend certainly suggests that many are interacting with the frail elderly in Medicare-related areas of health and physical functioning and thus are likely to be aware of problems in health care services and coverage as well as the barriers to resolving these problems. They are likely to be present when the frail elder is least able to physically, emotionally, or cognitively able to tackle a complex process. Their relationship with the frail elderly generally preceded the functional deterioration or advanced age, and the continuity of this relationship may mean they more readily recognize issues or problems that arise in the delivery of health services than a formal caregiver. They also are likely to facilitate many of the elder's links with formal systems of support.

It is crucial that family and friends be informed about Medicare rights and protections. Yet existing research suggests that many of these caregivers already are experiencing substantial burdens related to the caregiving. Informal caregivers, for example, are providing 39 of 46 hours of the care received on average per week by disabled elderly (Table 2). Many are committing large numbers of hours per week to elder support with serious time consequences in other family, personal, and employment-related areas of their lives. Many others are expending sizable financial resources for additional in-home care or long-term care. While it seems imperative that family and friend caregivers be targeted with information on Medicare rights and protections, it is advisable to not depend on them as sole conduits for information or assistance.

The frail and oldest elderly's need for personal, instrumental, and health care brings most of them into regular contact with one or more formal support systems. Almost everyone has at least one contact with some part of the health system. Sizable numbers visit Senior Centers or utilize other kinds of services such as those funded by OAA. Many receive some paid in-home care. Professional organizations to which some formal caregivers belong, like the American Medical Association and nurses' unions, offer opportunities for centralized outreach and communication with formal caregivers. These caregivers may be able to function as important conduits for rights and protections information, providing written, audio, or video information and in some cases verbal explanations.

The extensive variations in patterns of social support provision and receipt suggests the hypothesis that an effective communication strategy may have to target multiple social support pathways. It might include very broad campaigns to reach family and friend caregivers, perhaps through employers, unions, credit unions, or the media. At the same time, narrower campaigns might choose specific targets, such as clinician settings, pharmacies, senior center, or churches, to reach both the frail elderly and their informal caregivers.

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RAND

Comprehensive Environmental Scan Report

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October 18, 1999

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CHAPTER 1. INTRODUCTION

This document reports on the methods and results of an environmental scan for techniques used to communicate with the frail and oldest elderly. It is the fourth in a series of reports intended to inform the Health Care Financing Administration's (HCFA's) efforts to promote greater awareness and exercise of Medicare rights and responsibilities among beneficiaries made vulnerable by frailty or advanced age. Previous reports in this series provided a demographic profile of the frail and oldest old in the United States today, described their systems of support, and presented an annotated bibliography on health care issues relevant to these Medicare beneficiaries. In this report, we review communication techniques suggested in other fields, primarily business and marketing. The Primer that accompanies this report highlights strategies for communicating with the frail elderly, incorporates them with basic principles of good communication, and synthesizes them into recommendations on how to best communicate with frail and elderly adults. A subsequent report will recommend strategies for communicating Medicare rights and protections.

The demographic data reveal that over 15 million elderly Medicare beneficiaries are frail (defined in terms of functional limitations) and/or 85 years of age or older. Most of these beneficiaries (95%) experience some functional difficulty in daily living.1 The bulk of their care is provided by informal sources of support, usually spouses, family members, friends, and neighbors. These informal caregivers frequently commit substantial time and resources to elder care, are not formally trained in caregiving, as a rule, and are geographically, socio-economically, culturally and linguistically dispersed throughout society.2

Chapter 2 of this Environmental Scan Report defines an environmental scan and describes the specific methods used in this scan. The environments scanned primarily included business and commercial enterprises, and secondarily health communications. Our focus was on techniques of communicating with the frail and oldest elderly. The scan results are presented in Chapter 3 by the specific communication process to which they apply, i.e., audience analysis, outreach, marketing and content development, message structure, format design, message delivery, action orientation, and follow-up.

CHAPTER 2. THE ENVIRONMENTAL SCAN

The environmental scan sought information on the current state of information techniques for communicating with the frail elderly in the larger environment. An environmental scan is "a systematic and continuous effort to search for important cues about how the world is changing and how these changes are likely to affect your organization."[3] It involves viewing and searching for information on trends, events, and issues in the external environment to identify opportunities and threats, avoid surprises, and improve strategic planning.[4] A scan usually will cover a broad range of issues, use multiple sources, and seek input from outside the industry or profession (as well as from within) to encourage innovative thinking.[3] A defining feature of an environmental scan is its use in strategic planning. In this case, it is being used to inform the development of plans for communicating Medicare rights and protections information to beneficiaries who are frail and/or 85 years of age or older.

To conduct the environmental scan, we convened a strategic planning committee and designated multiple scan directions. The key personnel responsible for all components of this project constituted the strategic planning committee. The committee included a health policy analyst, health attorney, sociologist-demographer, communications director, health communications researcher, and staff assistant skilled in information retrieval. In addition to serving on the strategic planning committee, all members took responsibility for project tasks other than the environmental scan. The health policy analyst, health communications researcher, and staff assistant took major responsibility for the scan.

A distinguishing feature of this scan was its designated interest in communication techniques utilized in business and commercial enterprises. This focus was supplemented by searches in the health communications area to address specific issues such as low literacy. The first level of the scan involved a number of search approaches including library database searches, Internet searches, and a RAND network communique. The second level of the scan consisted of telephone interviews with representatives of marketing and advertising firms, product manufacturers, and service organizations.

LIBRARY DATABASE SEARCHES

Business, advertising, aging, and health databases were searched for articles about communicating with the frail and oldest elderly. The databases included Business and Industry Database, IAC Promt, IAC Management Contents, ABI/INVESTEXT MARKINTEL RESEARCH REPORTS, AGELINE, MEDLINE, HEALTHSTAR, PSYCHINFO, and Dissertation abstracts. The search strategies are presented in Appendix 1.

To help in the process of identifying products targeted towards the frail and oldest elderly, the RAND librarian identified periodicals in the United States directed towards the older population. The results of the search in Ulrich's International Periodicals Directory are shown in Appendix 2.

INTERNET SEARCHES

The internet also was searched for information on communication with the frail elderly. The environmental scan internet searches paired words that identify the population of interest ("elder," "senior," "older adult," "mature," "aging," "frail," and "geriatric") with the following terms:

- communicat-
- document design
- psycholinguistics
- cognitive psychology
- cognitive aging
- instructional research
- readability
- human factors
- research
- typography
- graphic design
- marketing
- advertising
- media
- television

- radio
- TV
- newspaper
- internet
- computer
- web
- magazine

In addition to scanning for information on communication techniques, the internet searches were used for other objectives. The web sites of large US companies were scanned for references to the frail or oldest old. Appendix 3 outlines the results of the review. We used internet searches to identify companies marketing products for the frail and/or oldest elderly. Here we started with products known to be of importance to this population, such as assistive devices, nutritional supplements, hearing aids, adaptive clothes, alert buttons, and monitoring services. Appendix 4 provides information on the companies identified in this search. The internet searches also identified a number of magazines targeting the elderly in addition to those in Ulrich's International Periodicals Directory. These magazines are listed in Appendix 5.

RAND NETWORK SCAN

We sent out electronic correspondence requesting leads on innovative efforts, literature, organizations, and individuals focused on communicating with the frail and oldest elderly. This request was distributed to approximately 800 researchers associated with RAND and identified by the following electronic mail address lists:

- Behavioral Sciences
- Labor and Population
- Health, Education, and Welfare
- All RAND Health researchers
- Economics and Statistics
- Technology and Applied Sciences
- Manpower Sciences
- RAND's Washington, DC office researchers

TELEPHONE INTERVIEWS

The second level of the environmental scan included telephone interviews with representatives of marketing and advertising firms, product manufacturers, and service organizations to gather communications information in addition to that found in database and internet searches. We first identified an array of companies associated with services or products marketed to the frail elderly. The database and internet searches, while primarily used for looking for communication strategies, also were used to identify products and services.

Magazines likewise were scanned for advertisements targeting this population. Those scanned consisted of an opportunity sample of magazines available at the local public library. We reviewed 1998-1999 editions of the *Reader's Digest* large print edition, *New Choices: Better Living After 50*, and the *New York Times* large print edition. Appendix 6 presents companies and products advertised in the other magazines. Once the companies were identified, we reviewed the company's web site, if available, for further information about the product or service provided.

We organized our lists of possible firms and products into four categories and planned our interview efforts to include representatives from all of the different categories. The firms and products were categorized into financial and advance planning, nutrition, education and social services, and health products and services. Utilizing the database, internet, and magazine search results, we also put together a list of advertising or marketing firms that appeared to focus on the elderly or on products marketed to the elderly. A total of 26 different companies, organizations, and service agencies were contacted; 15 phone interviews were completed, 2 companies refused, and 9 companies did not respond to three or more calls and were dropped from the call list. (See Appendix 7.) On average, it took 2-3 calls to identify the appropriate person able to answer our questions. For the most part, however, we were successful in reaching executive level respondents (i.e., vice presidents of mature marketing and/or communications, and/or presidents of private companies, agency or project directors, public relations specialists).

The interview questions were tailored for each individual call, based on what was already known about the company from the previous searches. We inquired whether they focused on the frail and oldest elderly and, if appropriate, about any techniques used to identify this population and its needs, to define and present the message, to deliver the message, and/or to follow-up and further promote the product. They also were asked how they evaluated the effectiveness of any techniques they used.

STRATEGIC PRIORITIZING

The strategic planning committee met five times over the course of the project. Early in the project, the committee helped develop a framework to guide the scan. The initial framework, outlined in Appendix 8, was designed to take account of the fact that different aspects of the communication process might be addressed by different sources. Designated aspects of the communications process included needs assessment/targeting, document design, pathways, and follow-up, and were defined as follows:

- Needs assessment/targeting: the techniques used to either identify the needs (e.g., service needs) of a target population or the techniques used to identify the population (e.g., market segmentation) for a particular product.

- Document design: the various techniques used to define and present the message (e.g., the information presented, technical aspects, language, symbols, literacy level, graphics).

- Pathways: the choice of the media or communications route for getting the message to the population, e.g., telephone, one-on-one, print media, television, video, internet.

- Follow-up: techniques used to encourage the absorption of the message once it has been initially sent, e.g., further sales promotion, assistance interpreting or integrating the message, follow-up contact.

The committee discussed possible sources of techniques for communicating with the frail and oldest elderly. Suggested sources focused on commercial communications, legal communications, and community service communications. The proposed strategy was to initially concentrate on the commercial sources and to selectively extend the scan into the other sources, depending on the topics covered and omitted by the commercial sources. It later was decided that sources focused on communicating legal issues would be important to the question of communicating rights and protections information and should be scanned, regardless of the results of the commercial sources scan. The results of the legal scan will be presented in the Recommendations Report.

This framework guided the environmental scan activities. As we began to synthesize the scan results, however, we found it useful to subdivide some of the processes and expand the framework to eight communication processes:

- Audience analysis: identify the target audience and its information needs or interests.

- Outreach strategies: identify the best communications medium for reaching the target audience.

- Marketing and content development: employ strategies to capture the audience's attention.

- Message structure: organize the content of the message in a way that facilitates understanding.

- Format design: design the physical format of the message to accommodate special physical and cognitive requirements.
- Message delivery: deliver message in surroundings and at times that enhance understanding and retention.
- Action orientation: promote action by showing the audience how to use information (how to take action).
- Follow-up: obtain audience feedback and revise communications products accordingly.
- Both the Environmental Scan Report and the Primer follow the outline of this framework.

CHAPTER 3: ENVIRONMENTAL SCAN FINDINGS

I. FIRST LEVEL SCAN: BUSINESS AND MARKETING TECHNIQUES FOR COMMUNICATING WITH THE FRAIL AND OLDEST ELDERLY

Introduction

Very little of the business and marketing information collected through the environmental scan differentiates or targets the elderly population made vulnerable by advanced age and/or frailty. A sizable portion of the literature suggests that the frail and oldest elderly are not of interest to the marketing world. At least until recently, most business and advertising efforts have explicitly targeted the nonelderly, mainly those between the ages of 25 and 49.[5] Harvey quotes Dychtwald on this point, "Until recently, the older population was reasonably small, incredibly frugal, had a high level of poverty and were pretty set in their ways. You've got four kisses of death right there."[6]

As the size of the population over 50 has grown numerically and proportionately and as the baby boomers have started to turn 50, marketers' attention has shifted to include some older people. With the numbers has come wealth and, thus, business opportunities.[6-9] Yet, much of this attention on the "mature market" is not directed at the frail and very old. The business opportunities – the gold in the gray, so to speak – are associated with the healthier, more active, and younger persons over 50, rather than the sicker, more impaired, older persons. Flanagan explains,

> A third category of older customers, including many in the over-75 group, do not have strong customer potential. Diane Crispell, executive editor of American Demographics magazine, points to census data that show many of the 13 million Americans aged 75 and older are women who are in poorer health and more likely to live alone, with relatives, or in institutions. Crispell believes they are a much different market than the "younger" elderly, whom she identifies as 65 to 74.[9]

Lewis says, "And *very* old people aren't a viable market for us. The demographic does change; from a marketing point of view, the change is recognizable and still attackable, but so insular any marketing to the *very* old has little appeal to any others."[10] It is not totally age per se, but lack of buying power. In speaking of marketing targets, Lewis mentions parenthetically, "A fifth category exists – "Non-Self-Supporting" – but this category is of little value in marketing because of minimal buying power. Some advertisers of staples, such as bread, milk, beer, and in fact the lotteries, include this category by avoiding any economic status in their appeals; but no major marketer mounts an appeal directly to this group."[11]

Yet, not all of the frail elderly are without buying power or willingness to purchase consumer goods. A closer look at marketing recommendations and practices suggests an indirect focus on the frail elderly. Marketers have begun to examine characteristics of aging that are key to the definition of frail elderly and underlie the vulnerabilities of interest here, to explore the communication needs related to these characteristics, and to propose strategies to address them.

Audience Analysis

Over 15 million or 46% of Medicare beneficiaries are 85 years or older and/or frail, defined in terms of functional limitation (any difficulty in instrumental activities of daily living (IADL) or activities of daily living (ADL)).[1] Because most beneficiaries over age 85 report some functional limitation, 95% of these 15 million experience some functional difficulty in daily living. The prevalence of disease and impairment is high in older adults and particularly in the frail and oldest elderly.[12] Both frailty and disease may diminish people's ability to seek and utilize information.

Physical and Psychosocial Changes Related to Aging

Within the business and marketing literature, a number of authors associate aging with physical and psychosocial changes that affect communication. Recognizing that all individuals do not necessarily experience all the same changes with aging, nor do they experience changes at the same age or in identical sequences, business and advertising experts emphasize the need to take such changes into account.[13,14] For example, Schewe says,

> It is unwise to categorize people just by their age, but it is also true that certain physiological and psychological changes are associate with aging. These changes affect a person's ability to receive a message. If your goal is to reach older Americans, you need to know how aging affects all facets of understanding.[14]

Moschis devotes considerable attention to changes related to aging.[15,16] In his perspective, "Aging is best characterized by progressively decreasing capacity of an organism to withstand environmental stress."[17] Both biophysical and psychosocial changes in capacity occur.

Biophysical changes may involve many body systems. Changes in sensory processes most obviously may affect people's abilities to receive, send, process, or act on information messages, and multiple changes in sensory processes frequently accompany aging. Hearing declines, most often affecting high frequency sounds. Hearing loss, in turn, can create difficulty in understanding speech. One's ability to see changes, often decreasing the speed of focusing, increasing sensitivity to light, distorting colors, creating visual deficiency, and reducing the total field of vision. In discussing financial services marketing, Gruber describes these visual changes as follows:

> As we age we experience the need for more light; less tolerance for glare; difficulty in seeing objects at close range (presbyopia); a decrease in the ability to discern different visual patterns and detail; and a slowing of the ability to adapt to changes in light and darkness. In addition, the neurons in the eye and the brain might become unable to properly process the impulses they receive due to the effects of injury or illness, such as a stroke.[18]

A person's abilities to grip and hold, smell, touch, and feel pain may become less dependable. Chronic conditions (e.g., arthritis, urinary incontinence, heart conditions) and functional impairments (e.g., reduced ability to walk, climb stairs, drive vehicles) may impact an individual's capacity to receive or respond to messages. They may, for example, interfere with their ability to physically go to a store or other location, attend a seminar, or fill out forms. They similarly may reduce interaction with other people (including potential bearers and explainers of information) and increase social isolation.

Aging also relates to people's information processing abilities. Affected here might be their perceptual systems; cognitive systems (including short-term memory, long-term memory, and encoding and retrieval strategies); and motor performance systems.

People perceive their environment by interpreting and integrating the information they receive through their senses. Perceptual as well as sensory abilities decline with age. Persons are likely to take in less information and to take more time to get information and make sense of it. Attentional capacity also declines.[16]

In a study of elderly consumer decision making, Bikson and Goodchilds[19,20] found that older adults make more errors in situations requiring rapid response and that they are less likely to make an optimal decision as the amount of information presented exceeds their immediate memory span. They found that the elderly frequently do not recognize irrelevant information as irrelevant, or redundant information as redundant. They found their subjects were receptive to new information but had more difficulty incorporating negative than positive information.

Gruber explains the difficulty older clients often experience in identifying the relevant information on financial services materials:

> Older people are slower than younger people at picking up information and putting it together from printed and other visual material, unless they know exactly where to look for the desired information within a field of irrelevant information. I often hear clients complain that they have difficulty finding information on their mutual fund statements, such as the account number and the year-to-date dividends and capital gains distributions. They also have more difficulty than the younger person when attempting to pick out important information from insurance illustrations. Recall that the various mutual fund families have different statement designs so that this information appears in different places on statements for the various fund families. It takes more time for the older person to sort through the information on the page to locate the desired information than it does for a younger person. Any unnecessary information makes it difficult if not impossible for the older person to ferret out the desired information.[21]

Cognitive decline primarily appears to occur in short term memory and in the encoding and retrieval processes involved in transferring information between short-term and long-term memory.[16] According to Lawe et al., "a study by Gaeth and Heath (1987) demonstrated that the elderly, not only showed poorer recognition memory for advertising claims, but were more likely to miscomprehend advertising assertions."[22] Aging relates to motor performance or the translation of thoughts into actions, primarily through slowing of reaction time.[16]

According to Moschis, "substantial research shows that general cognitive decline is *not* an essential element of chronological aging. Rather, the changes are more in the way the information is handled and the speed with which it is processed."[23] Research suggests that such changes are affected by numerous other factors, including level of education, how active the life-style, motivation to process information, and previous experience.

This marketing literature assumes that effectiveness of communication with older adults can be influenced by environmental stimuli that take changes in information processing into account. In other words, knowledge of these changes can be used to strategically improve communication. The pacing of the presentation of information, for example, is assumed to affect an older person's likelihood of taking in (or missing) the information and processing it. Communication might be improved by slowing the stimulus pacing or by allowing the person to adjust the speed of the pacing. The quantity of information presented might be an important variable, since information overload and irrelevant information present greater difficulties for older adults. Other variables for consideration include the presentation format, the organization of the information, its complexity, instructions sets, and response formats.[16] Moschis argues, "Marketers and providers of various services who are aware of changes in late life can help older consumers compensate for these frailties by making certain modifications in products or retail environments."[16]

Elderly Market Segmentation

Marketers segment the mature market to more precisely appeal to specified needs and interests. Some incorporate age and frailty into their segmentation methods.

Market segmentation has been defined on many bases, including age, the experience of historical events, work status, discretionary time, economic factors such as descretionary income, activity levels, and life stages.[24] Lazer segments directly by age: 55-64, called olders; 65-74, elderly; 75-84, aged; and 85+, the very old.[25,26] For insurance marketing, Crohn suggests dividing into two age categories: those aged 50-74 and those 75 and older.[27] Herlihy suggests five age segments for direct marketing purposes: leading-edge boomers (aged 50-60), pre-retirees (50-60), young elders (60-70), active elders (70-80), and sunset elders (80-95+).[7] Smith and Clurman link age and cohort, defining groups by their shared historical and cultural experiences as members of the same generation,[28,29] but their resulting generational markets (matures, boomers, and Xers) do not help focus in on the vulnerable elderly. In segmenting the assisted living market, Landis and Snyder apply generational labels to two age segments of the pre-boomer elderly: the silent generation (aged 56-73) and the G.I. generation (74-97).[30] Burnett argues in favor of segmenting the elderly by income level.[31] In research for Medicare plan marketing, Age Wave identified six income-related senior segments such as "sophisticates" ("married couples with a net worth above $1.5 million who have lived only briefly in their current single-family home") and "strugglers" ("single women with a net worth < $100,000 who've rented the same flat for more than 16 years.").[32] Uncles and Ehrenberg suggest segmenting the elderly market by activity level: those physically active and physically inactive.[33,34]

Moschis and colleagues at the Center for Mature Consumer Studies (CMCS) at the Georgia State University have segmented the elderly by four life stages: healthy indulgers, healthy hermits, ailing outgoers, and frail recluses.[35,36] These life stages are not defined by age but by biophysical, psychosocial, and social factors.[35] Both ailing outgoers and frail recluses are defined by frailty, among other factors. Other kinds of definitions – or combinations of definitions – have included new-age elderly versus traditional[37] and the "life-style segments" of active affluents, active retireds, homemakers, disadvantaged, those in poor health, and others.[38] The latter three segments – those disadvantaged, in poor health, or other – are thought to be of little interest to marketers.[39] A Roper Starch study used lifestyle differences to define five groupings of people over fifty: first families, second chancers, continuing caregivers, new me's, and free birds.[40] Variable segmentation based on multiple factors has been advocated by Morgan and Levy;[41] marketers might divide older adults by their attitudes towards life, aging, and finances and thus distinguish four "Self Segments" (upbeat enjoyers, insecure segment, threatened actives, and financial positives) or differentiate on the basis of health-related views and distinguish four "Health Segments (proactives, faithful patients, optimists, disillusioned) or look at attitudes toward eating and nutrition and distinguish three "Food Segments" (nutrition concerned, fast and healthy, and traditional couponers).[42]

Outreach Strategies

Mass Media Use Among the Elderly

Use of Information Sources. Research suggests that the elderly rely on their own prior experience and the mass media as their main sources of information. Reliance on the mass media increases with age, as does the perceived credibility of the message.[43]

Studies show that adult media use follows the order of television, newspaper, and radio. In a convenience sample of community-dwelling, English-speaking seniors aged 55 and older, respondents reported the following:

- 85.1% watched at least 1 television news program 5-7 days per week
- 62.5% read the newspaper headlines 5-7 days per week
- 58.8% read the newspaper front page 5-7 days per week
- 40.0% listened to at least 1 radio news program 5-7 days per week

The data from this survey suggested that gender and education, but not age, related to such media use.[44]

Other researchers have found that media use changes with age. Marketing communication researchers found that older adults watch television more frequently than younger adults.[45] Radio listening declines with age, but newspaper reading remains high.[16] Table 1 shows the use of selected news media among different age groups. Eighty percent or more of all adults age 60+, including 80% of those 80+, watch television news programs regularly. Over 50% of the adults in each of the elderly age groups watch news magazine shows regularly. At least 65% of all elderly and 69% of those age 80 and over read a daily newspaper.

Table 1: Use of News Media by Age

	Age					
	30-39	40-49	50-59	60-69	70-79	80+
Watch TV news programs regularly	70	74	83	85	87	80
Watch news magazine Shows regularly (e.g., 60 Minutes, 20/20)	39	41	51	55	51	53
Read a daily newspaper	49	59	60	65	71	69

SOURCE: Data extracted from Moschis, 1992, Tables 8.1 and 8.2, which were compiled from data from the Times Mirror Center for the People and the Press (1990).

Television. According to data collected at the CMCS, the medium most widely used by adults aged 55 and over is television. "More time is spend watching television than engaging in any other activity, except sleeping."[46] Television is thought to serve a number of functions related to aging needs. It may offer a substitute for loss of companionship and social ties, and it may help to both mark time and fill time for people. By providing visual and auditory information simultaneously, it may help people compensate for the loss of ability to obtain information through reading or listening to the radio.[16] Older adults' viewing patterns differ from those of younger persons with respect to program preference and viewing times. Studies have found that the elderly, in viewing television, are more interested in obtaining information than in entertainment, and they prefer nonfictional programs such as news, talk shows, and game shows. Older adults watch more television early in the day than younger adults, although their viewing rates are high in the early evening (prime time and the 7:30-8:00 p.m. prime fringe) as well.[16]

Cable television is an important source of information for the elderly. In late 1990, 26.8% of those 65 and older subscribed to a premium cable channel (such as HBO) according to a CMCS survey. (The percent basic cable subscribers was not given.) Education, finance, news, and public affairs cable shows are popular with older adults.[16]

Radio. While fewer older than younger adults listen to the radio, the older radio audience is still sizable. One survey found that 70% of people 50+ hear the radio at some point during the day. Morning hours are their primary listening time. Moschis attributes the increase in all-new, all-talk, and nostalgic radio shows to a shift in programming intended to appeal to older adults.[16]

Print. Newspaper reading seems to increase with age. The majority of elderly adults prefer news stories. A study commissioned by the Newspaper Research Bureau found that 63% of adults age 65+ wanted the added details found in newspaper as compared to television news. Sixty-one percent said that they read available editorial items about older adults most of the time.[16] Smith emphasizes to accountants that the number of newspapers and tabloid-type publications directed towards a mature audience has grown considerably in the past years.[47]

Magazines are less popular as sources of information for older adults. Those with high readership among mature consumers included Reader's Digest, TV Guide, Modern Maturity, Better Homes and Gardens, Family Circle, National Geographic, Good Housekeeping, and Women's Day.[16] Marketers of the Alzheimer's Disease medication Aricept have used women's general interest and consumer health magazines in particular, to reach early-stage Alzheimer's patients and their caregivers.[48]

Internet. The Roper Starch data suggest that older adults 65 and over are less likely to own more high tech communication means. In 1997, 61% reported owning a VCR. Only 15% owned a computer and 13% reported using a computer in the last 30 days.[49]

Table 2: Mature Americans and New Technologies

	Age		
	40-49 %	50-64 %	65+ %
Own computer*	48	36	15
Used a computer in last 30 days*	63	42	13
Own a VCR**	82	76	61

SOURCE: Data extracted from Roper Starch's report, "Technology receptivity and mature Americans: An analysis of 50-64 year-olds and 65-plus as compared to early boomers," 1998, pages 6 and 9.
* July 1997.
** April 1997.

The Roper Starch report showed that the older adults also were less enthusiastic than the younger adults about using high tech products, but were not adverse to them either.[49] The frequency of Internet use was high among the few who used it: only 5% of all persons 50 and older accessed the Internet, but 46% of these users accessed it every day.

According to the Microsoft Seniors and Technology Website, in 1999 24% of older adults 60 and older own and use computers, 16% of those aged 70-79, and less than 4% of those aged 80-89. This elderly computer use is less than half that of the general population.[50]

While personal ownership of computer is very low among the elderly, some non- owners undoubtedly also have access. Some seniors in senior residences are using computers in common areas, for example.[51] Efforts to decrease social isolation among older adults also are focusing on computer technology is such settings.[52] Computer technology is being advocated as a means to forge intergenerational communities.[53] While no figures on the number of elderly with computer access (other than ownership) were uncovered, the percent must still be low. One study suggests that the elderly computer users (like young adults) like to use the Internet for socializing and communicating, in contrast to adults in the middle years who are more focused on using the internet for getting information.[54] Microsoft has provided financial support to senior centers and training support to HCFA's network of State volunteers to help older adults and their caregivers access Medicare and other program information on the internet.[55] The low accessibility at this point in time, however, severely limits dependence on this pathway. The GAO, for example, objected that a HCFA plan to distribute HMO comparative information on the internet (and not to beneficiaries directly) might "make it less accessible to the very individuals who would find it useful."[56]

Reliance on Professionals, Service Providers and Other Information Sources

Older adults also rely on professionals and service providers for certain kinds of information. There is evidence to suggest that older consumers are attentive to information from pharmacists. In a survey of 200 elderly consumers, 75% reported receiving some written or oral information the last time they has a new prescription filled. (Fifteen percent reported that they had to request the information.) Sixty percent of the women respondents and 34% of the men respondents reported that instructions from pharmacists were very or extremely important.[57] Almost 90% of the frail and oldest elderly take at least one prescribed medication in a year. Over 95% use at least one physician or supplier service per year.[2]

According to Gruber, adult children seek information from financial planners on Medicare HMOs.[58] The federally funded Information Counseling and Assistance program (offered through states' departments such as aging and insurance) uses a volunteer structure to offer help with health care choices and Medicare claims.[59]

Moschis summarizes,

> mature consumers are fairly similar to younger consumers with respect to the types of information sources they use; they differ in terms of exposure and the trust they place in these sources. Information sources in the person's external environment are not the only sources that can affect behavior. Rather, past experience tends to serve as a strong internal source of information for the older consumer. A person's social isolation might result in lower exposure to personal information sources, but personal sources might become more important because of the person's decreasing ability to evaluate consumption alternatives. The replacement of scarce informal personal sources with commercial sources also might result in greater reliance on such sources for consumer information when informal personal sources are not readily available, despite the aging person's increasing difficulty in using these commercial sources of information.[60]

While little research was found specifically on the media use of the *frail* elderly, Moschis' data on the media use of ailing outgoers and frail recluses offers some indication on possible differences related to frailty. CMCS research found that ailing outgoers and frail recluses watch more premium television cable than the non-frail elderly groups. Ailing outgoers watch the most television, while frail recluses, on the other hand, are among the lightest viewers of television. With respect to magazines, ailing outgoers had the highest readership of magazines for the aged and those focused on "health/nutrition," "general interest (women)," and "general interest (all)." Frail recluses had the highest readership of magazines on "food/cooking," "travel/leisure/geography/history," and "homes/decorating." To illustrate the contrast, magazines classified as "business (professional)," "news and public affairs," "sports" (both spectator and participant), and "religion" were those for which healthy indulgers had the highest readership.

Information Sources for Purchasing

In general, mature consumers appear to search less for information on products and services than younger consumers. They rely on both personal sources, such as friends and relatives, and formal sources, such as television and radio. Relatives are important as personal sources of information with spouses becoming less important and children more important as age increases. The relative influence of personal sources versus mass media sources varies with the expense of the product or service.[15] Among media sources, television and newspapers have more credibility among older adults. Newspapers are perceived as most influential. Reliance of particular sources of information varies by the product or service on which information is sought.[16] Table 3 presents findings from a CMCS study of mature consumers' use of various sources for two specific products or services: health-care and financial.

Table 3: Mature Consumers' Use of Sources for Information on Two Services

	% of people 55+ who found listed sources helpful in keeping informed about:	
	Healthcare Products/ Services	Financial Services
Newspapers & magazine ads	38.9	34.9
Radio & television ads	30.0	20.4
Advocate sources, (e.g., Consumer Reports, editorial columns)	25.9	27.1
Direct mail	22.3	21.6
Spouse	18.9	16.2
Friends & acquaintances	18.7	12.1
Salespeople or other professionals	18.5	22.6
Other relatives	10.0	7.4
Children	7.0	8.3

SOURCE: Moschis, 1992.[15]

Moschis argues that decisions on marketing sources of information must take product characteristics into account as well as the target market.[15]

The Roper Starch survey also provides data on older adults' information sources for purchasing products.[61] When asked about use of sources to "buy something," 29% reported use of the newspaper and 20% use of the telephone. (See Table 4.)

Table 4: Mature Americans Exploring New Buying Channels

	% say use each to "buy something"		
	Age 40-49	Age 50-64	Age 65+
Telephone	31	27	20
Mail	23	21	16
Newspapers	19	24	29
Magazines	13	14	9
Television	13	14	11
Computer	6	3	2
Radio	5	6	5
On-line/Internet	3	2	1
Fax machine	2	3	1

SOURCE: Roper Starch's report, "Technology receptivity and mature Americans: An analysis of 50-64 year-olds and 65-plus as compared to early boomers," 1998, page 12.

Lewis says that as people age, they buy more by mail. The giant media for selling to seniors are television and direct response, including direct mail, telemarketing, catalogs, and Internet.[62]

As sources of clothing information, Keir reports that older consumers prefer magazines and least prefer videotape and audiotape.[63]

CMCS found that, in contrast to healthy hermits, a larger proportion of frail recluses prefer to purchase books, magazines, and videocassettes through the mail. In comparison to healthy indulgers, more frail recluses and ailing outgoers (and healthy hermits) prefer to purchase the same products by phone, and more frail recluses prefer purchasing at stores than either healthy indulgers or ailing outgoers. CMCS research on preferences for sources of information on clothing and shoes revealed that ailing outgoers are twice as likely to prefer receiving information in the mail than healthy indulgers, and ailing outgoers are more likely to prefer group meetings or seminars than healthy hermits.[35]

Integrating and Selecting Outreach Strategies

Moschis suggests multiple pathways strategically selected:

> Finally, planners of communication strategies should use various channels of communication in a complementary fashion. Mass media should be used to create awareness, and personal sources should be sought out in an attempt to create word-of-mouth communications, especially for relatively expensive products and services."[64]

His research also suggests that different outreach strategies should be used for different products. Marketers to ailing outgoers, for example, are encouraged to educate sales clerks regarding older people's needs for food products; location near retail stores for restaurants; use direct mail and informal seminars for clothing; educate pharmacists for pharmaceutical products; initiate telephone/personal contact and direct contact systems for appointments and health monitoring purposes for health care; train sales force at cross-selling, sponsor events, develop partnerships with non-traditional service providers, and efficient telemarketing for insurance products. Proposed marketing strategies for frail recluses should include direct mail, group membership programs, locational convenience (health care).[65]

Different population segments may respond differently to outreach strategies. Frail recluses, for example, are more likely to respond to direct mail, group members programs, and location convenience for health care consumption.

Some health plans currently are using multiple strategies for marketing Medicare plans. According to Major,[66] Harvard Pilgrim Health Care includes mass media (television and print), direct mail, publication of a toll-free number for inquiries, and senior seminars in its marketing campaign. Other plans, including Secure Horizons, also are using strategies which call for strong community outreach. Such outreach might be through social clubs, gardening clubs, shopping malls, focus groups, health-related seminars, or entertainment programs with senior organizations. Having older adults' physicians do the selling also is recommended.[66]

As another example, an FDA guidance calls for drug companies advertising on TV or radio to use four different vehicles for communicating information on product risk and uses: a toll-free phone number, reference to a print or distribution of convenient brochures, reference to a healthcare provider, and an Internet address. The purpose is "to ensure that consumers with different information-seeking preferences are able to get comprehensive product information" while meeting privacy concerns.[67]

Some marketers have initiated using pharmacists as pathways. A new "specialized marketing-magazine hybrid" called *MediZine* reaches consumers through pharmacies. Offering wellness and health-related information, *MediZine* is distributed quarterly to 17,000 of the nation's 20,000 top chain pharmacies. Free to the consumer, the magazine is paid for by ad placements from such companies as Bristol/Myers Squibb Co., Keenex, Depends and by customized back cover ads paid for by the drug stores. Plans are underway to also distribute *MediZine* through 75,000 doctor's offices.[6] A similar marketing example, *Nature's Regimen,* a $.99 quarterly focused on herbal remedies, is distributed through pharmacies, supermarkets, and mass merchandise stores.[6]

Another example of distribution through pharmacists involve packets of samples and coupons. A program by MarketSource's Prime Time distributes 1 million packets to consumers 45+ through Medicine Shoppe pharmacies, a chain that targets the elderly. The packets include samples and coupons from such marketers as pharmaceuticals, MCI, Hersey, Keebler, General Mills, Lifesavers, Choice Hotels, and Amoco.[68]

Caregivers have frequent contact with pharmacies and/or home medical equipment providers. According to the National Family Caregivers Association, the products most purchased by caregivers include incontinence and ostomy products (5%), aids to daily living (45%), and bath safety items (35%).[69]

Senior centers also are being used to channel advertising information to older adults. For example, the marketing and research firm Senior Market puts ads and coupons (from such companies as Proctor and Gamble, Amtrak, Nabisco, and American Home Products) in 2,500 senior centers.[68]

RxRemedy is a free-to-consumer magazine, distributed through direct mail, which provides health and drug information and advertising. *RxRemedy* used Donnelley Marketing lists to identify more than 1.5 million homes with older adults. They send first-time recipients a wraparound survey with *RxRemedy* and follow up on non-respondents. Through this survey, they collect data on the household demographics, medical conditions, and drug products. Advertisers also can add questions to the survey to identify interest in specific products. These data, in turn are then used to target promotional and marketing information and coupons to different recipients. Consumer identification numbers are placed on coupons, and positive responses may be followed up with additional information, coupons, or polybagged samples.[70]

For accountants, Smith recommends four pathways for reach non-clients: senior group seminars in churches or retirement communities, contributions to such groups' newsletters, clients who are children of elderly, and tabloid-type publications and newspapers.[47]

Petersen suggests the following information distribution strategies to Medicare health plans: outbound telephone calls to members, town hall meetings, community health fair participation, offerings (e.g., sporting tickets) to distribute to unhappy members, and provisions for representatives to quickly pay claims.[71]

Marketing and Content Development

The message should be crafted so as to capture the interest of older adults, sustain their attention, and facilitate their processing and understanding of the information.

Strategies to Capture Interest and Sustain Attention

Strategies suggested by Lewis for gaining the interest of older adults include:

- Spell out benefits.
- Avoid confusion. ("Buying interest decreases in exact ratio to an increase in confusion.")
- Get to the point. Tell the reader what you're selling within 5 seconds.
- Listing specific benefit. Specifics outsell generalizations.
- Use trigger words for seniors such as:
  - discount
  - buy direct – suggest a special, favored position.
  - have a problem with …?

- do you remember how [WHATEVER] used to be?
- have you considered?

Other attention-grabbing openings:

- "If you're [WHATEVER], we want to talk to you."
- "You asked for this."
- "As seen on TV."
- "Special Bonus Offer expires in 7 days."
- "You could e a big winner!"
- "You have worked hard and deserve this special offer that will not be made to others."[72]

Primelife tips for marketing to the mature[73] include:

- "Avoid stereotyping."
- "Get to the point." (don't lie, try to fool, or camouflage)
- "Speak their language." (non-tech talk, talk straight to them)
- "Do not patronize."
- "Educate as you explain."
- "Be positive, not pushy."
- "Instill trust." ("reek of ethics and integrity")
- "Get personal."
- "Segment and subsegment."

For retail banking, Sullivan's[74] 10 tips for selling to seniors include:

- "Understand the senior marketplace."
- "Avoid stereotypical thinking about seniors."
- "Train branch personnel to sell to seniors." (sensitivity training)
- "Use wholistic marketing techniques that mirror seniors' values." ("use attributes such as a visual, emotional, and wholistic communications")
- "Sell the bank first, then the product."
- "Deal with physical disabilities." ("Deal with hearing and vision loss straight on." Assume they have such difficulties until you learn otherwise.)
- "Prepare senior-oriented sales materials." ("Seniors are avid readers" – easy to read communications with no banker jargon – hire a writer who understands seniors.)
- "Use visual symbols" (e.g., scenes of home, pets, children, American flags, fireworks, and other patriotic pictures).
- "Stress the positive." (Don't stress pain or physical limitations or age as a time of uncompensated decline).

While there does not appear to be uniform agreement on this, many marketers seem to suggest embedding an appeal to the elderly within a larger appeal to multiple generations or to groups defined other than by age. Two reasons are offered for bypassing a unique appeal to the elderly. One is that a campaign directed at the elderly is thought to turn away the non-elderly, thus hindering marketing effectiveness for products not exclusively sold to the elderly. When a supermarket in Florida altered its facilities to better accommodate frail shoppers and offered motorized vehicles, it lost many of its younger shoppers. The supermarket's subsequent investigation suggested that the younger customers did not want to shop at what they then perceived as a "geriatric" supermarket.[65] The other reason for not positioning products or services to directly and uniquely appeal to the elderly is that the elderly themselves may not respond positively to the appeal. Marketing research suggests that older people's response to elderly appeals, e.g., use of frail elderly spokespersons, varies from product to product. But the literature is replete with reference to evidence that older adults see themselves as 10 to 15 years younger than their actual age.[24,75,76] One study found that older men respond more positively to appeals or special programs targeting retirees rather than an older age group and posited that retirement may have a less negative connotation than old-age status specifically because it may encompass younger people as well, e.g., retired athletes.[16] Cautious sensitivity to age-stereotyping is suggested.[77] Others have argued that elderly consumers should be depicted more frequently and favorably in advertising.[78]

Older adults are not more or less responsive to fear appeals than younger people.[43] Lewis' guidelines for direct marketing, on the other hand, suggest putting the fear of being a sucker to work by including reassurances such as credentials and guarantees.[79] Similarly, "Allaying insurance fears also can be achieved by the arm-around-the-shoulder technique…the friendly advisor." An example ad referred to how the belief that insurance purchasing decisions are complicated and suggested that they could make it easy.[62]

Haller recommends testing spokespersons, not getting chummy, and avoiding slickness because older adults are often suspicious of flattery or scheming deference.[80] Long encourages advertisers to sensitively treat elderly's role in the lives of their children and grandchildren.[81]

For financial services marketing, Kennett, Moschis, Bellenger[82] recommend addressing psychosocial needs related to aging by such strategies as understanding that older people's self-image (particularly that of thinking of themselves as younger than they are) and using this image in the marketing communication, hiring older personnel, using older spokespersons in ads while avoiding stereotypes, and developing products aimed at consumers of any age but of greater appeal to the elderly (avoid isolating the mature consumer). Schewe and Meredith go so far as to refer to older people's wish for intergenerational experiences as a "touchstone" subject for reaching older adults emotionally.[83]

Research at the CMCS reveal values specific to the frail consumers segments of ailing outgoers and frail recluses. These values, in turn, may be used for theme building. Their research found that ailing outgoers value social networks, think about their health in an upbeat and security-conscious fashion, like to belong to clubs such as hotel chain clubs, and do not mind being old or marketing messages that properly portray older people.[35] Ailing outgoers want to maintain an active lifestyle; value things that keep them socially.[16] They respond to positioning themes of taste, convenience, product functionality, social acceptance, ease of use, price, value, reasonableness of fees, facilitation of independence for such products as food, restaurants, clothing, hotels, health care, insurance, and housing.[65] Moshis' research also suggests that ailing outgoers value easy-to-use and easy-to-read products with clear labels (food, pharmaceutical products), seller alliances and consumer clubs (hotels, health care), and wide assortment of investment products and liberal cancellation / refund policies (insurance), while frail recluses value overdraft protection (financial services). Marketing strategies for ailing outgoers should include proper stereotypes in ads (pharmaceutical products, hotels), and avoid age stereotypes in ads (health care).

Frail recluses value convenience, monetary security, and banking staff trained to explain.[35] They value things that make day-to-day living easier[16] and respond to themes of financial independence, convenience, and medical care accessibility for such products as financial services, health care, and housing.[65] Marketing strategies for frail recluses should include training sales representatives to spend time explaining services, making personnel in branches available to assist with filling out forms (financial services), and avoiding stereotyping in ads (health care).[65]

Themes appealing to caregivers may be somewhat different. The president and co-founder of the National Family Caregivers Association says, "Caregivers need information about products, high-quality, customer service, good pricing, and convenient locations. We are looking for normalcy and ways to minimize the hassle in our lives."[69] Approaches which recognize the frustration frequently experienced in their daily lives and the stress of constantly coping with the high cost of caregiving may be particularly important.

Message Structure

Moschis says:

> Present knowledge about ability to process information in late life suggests several implications for marketers and advertisers who wish to effectively communicate with the aging population. These professionals should be familiar with the older person's patterns of information processing so that they may present information in a way that is suitable. For example, the information reviewed here suggests that televised messages be slow-paced, simple, to the point, with minimum distractions (in the form of music, for example) or other irrelevant information; they should contain few key points that are repeated frequently. The scenes should be familiar to older people and help the older viewer associate the product or service with other familiar stimuli for better recall. Finally, changes in central versus peripheral processing suggest that, with age, symbols, cues, and associations with other familiar stimuli are increasingly more important than factual information. Such stimuli can be effective in increasing recall. However, in situations where the older person is expected to absorb a lot of information, marketers and advertisers would have to educate and motivate the older person to do so. In sum, the changes in information-processing abilities in late life pose challenges to those who wish to effectively communicate with the aging population. Decision makers must not only understand consumer behavior of older persons but also how their cognitive abilities change in later life.[84]

Simplicity, Emphasis, and Parsimony

According to Gruca and Schewe simplicity in design is critical to dealing with decline in information processing abilities.[13] Parsimony is also important. (Short rather than long; picture rather than words.) In separate articles, Schewe[14] and Schewe and Meredith[83] stress simplicity. Schewe additionally recommends making the message both familiar and concrete and taking it point by point.[14]

Moschis says:

> Another way marketers can improve their communication with the older person is by changing specific stimuli to reduce cognitive effort and time to locate external information, retrieve previously learned information, or encode new information. For example, important information in print ads or packages can stand out via color or size, and symbols can be used to convey the concept. Similarly, grouping positive benefits and negative consequences together and presenting them in close proximity, and providing information on a relative or comparative format facilitates information processing.[84]

While older consumers may be in greater need of consumer information in some areas, e.g., pharmaceuticals, more information by itself is just likely to create information overload. Communication with the elderly will be improved if information is simplified and located so it is easier for people to identify (on packages and labels). Also, consumers should be given cues to look for in buying drugs (e.g., colored codes (dots) in fixed spots on labels signifying adverse effects).[16]

Mochis says,

> The study by Cole and Gaeth suggests that the way product information is presented influences who will be able to use that information effectively. For example, the elderly who have difficulty in identifying relevant information would be best served if the FDA listed on fixed spots of the label colored codes (dots) signifying certain adverse effects.[85]

For financial services marketing, Kennett, Moschis, and Bellenger suggest addressing cognitive changes through such marketing strategies as sensitivity training and training sales staff to help consumers understand the offerings.[82] To help deal with older clients' difficulties identifying the important messages in financial services materials, Gruber stresses simplicity:

> Knowing this, present the most relevant information in short bullets surrounded by ample white space. This format is especially helpful when presenting details about long term care insurance, financial plans, estate plans, and other complex concepts and strategies that might be unfamiliar. A simple presentation is best. Offer more complex backup analysis or information for the client to read at his discretion, at his leisure, and at his own pace.[86]

For Medicare plan marketing using direct mail, AgeWave recommends keeping it short and simplifying copy.[32] Similarly, Long recommends emphasizing simplicity and clarity for marketing interviews.[81] Lewis, however, cautions against making a long story short in direct marketing because it becomes suspect[79] and Haller[80] stresses avoiding triteness.

Aided Recall. Gruca and Schewe stress that visual aids improve recall. (Visual memory decline is not as great as verbal memory decline.) Offer aided recall when possible to help overcome age-related deficits in recall (short term). Use specific triggers or instructions – pictures, visual imagery, cues, "Picture your last...."[13] Schewe and Meredith include rational appeals, and pictures as effective strategies for conveying marketing information to older adults,[83] and Schewe recommends supplying memory aids, and making good use of context (stirring recollections of pleasant events – positive images of family, health, social interaction, and accomplishment of tasks).[14] Similarly, Long suggests that marketing interviewers give prompt material to assist in aided recall.[81]

Format Design

Strategies for Printed Materials

Gruca and Schewe recommend using at least 13 point type on printed materials, avoiding glossing paper (to avoid glare), and using highly contrasting colors.[13] For direct marketing to the elderly, Lewis says to use large enough print; less then 9 point is deadly;[79] no type smaller than 10-point.[62] Smith's review of Moschis' 1992 book emphasizes the strategy of designing pages with large print and certain color combinations.[47] Moschis specifies that large-size serif type should be used and italics, ornate faces, and styles with extraneous squiggles avoided. Bright colors, e.g., red, yellow, and orange, are better than blue, green and purple. "Further, the reduced light sensitivity lowers the contrast threshold, suggesting the need to choose colors for maximum contrast and to combine highly reflective with least reflective colors for maximum contrast (for example, white and black). Similarly, increasing sensitivity to glare suggests the need to avoid environments that are potential sources of glare such as highly reflective floors, glossy paper, and larger uncovered fluorescent lights. High levels of illumination are important to help the older person compensate for reduced dark adaptation."[87]

For bank marketing, easy to read materials and slightly larger print size are recommended.[24] For financial services marketing, Kennett, Moschis, and Bellenger suggest addressing biophysical changes through such marketing strategies as readable tags and labels, larger print size, offers of assistance with filling out forms, and alterations in the décor, layout, lighting, etc.[82] Gruber offers quite specific guidelines for improving visual communication when marketing financial services to the elderly:

> Printed material needs to be on noncoated paper (stock), not glossy paper. Nor should the print be shiny. Anything that reflects light, such as white or metallic, can produce a glare. A deluster finish that coats the paper is ideal for brochures and other marketing pieces, since it reduces glare. The ideal printed material is on noncoated, off-white paper, such as ivory or light gray, with print (copy) in a contrasting color, such as black, very dark blue, or very dark gray. Avoid copy and stock of lower contrast, such as blue print on green paper, or gray print on gray paper. Avoid printing that has visuals as a background. It might be difficult for the aging eye to focus on

> your written message.[88]
>
> Type size, style, and spacing are very important. The minimum recommended type size is 12 point, although 14 point is ideal, and 18 is necessary for the seriously visually impaired. The type style needs to be simple and without flourishes (sans serif). The easiest to read fonts are Universal, Arial, Arrus, Times Roman, CG Times, and Courier. The letters themselves need to be thick with adequate spacing between the letters. Use italicized, all capitals, and bold or slanted letters infrequently and only when necessary. Thicker characters, which are far enough apart so as not to run together, are acceptable. Use mono-spaced fonts, that is, nonproportional spaced fonts. Margins should be at least one to one and one-half inches so that the printed line does not exceed six inches. Do not justify the right margins. This creates a need for proportional letters, with uneven spaces between them. Use 1.25 line spacing, or create lines that have space between them that is 25 to 30 percent of the point size. Always provide ample lighting in the room.

For direct marketing to people over fifty, Kesner recommends 12 point type, plenty of white space, bold headlines, subheadings, and short columns rather than type set across an entire page width.[89] Long copy is acceptable. Four color is preferable to black and white in graphics and photography.

Haller recommends testing colors (older adults often go for more subtle designer colors). He also suggests paying attention to spatials; maps become difficult to read and graphs and charts should not flash by too quickly.[80]

For marketing interviews, Long's recommendations[81] include:
- "Encourage respondents to have their glasses at hand"
- Encourage respondents "to read at their own pace"
- Have good lighting
- Develop materials that are clear, with bold and large typeface, and strongly differentiated colors (not pastel)

Primelife tips for marketing to the mature[73] include:
- "Provide simple-to-read literature" ("increase the font size on labels, use contrasting colors, stay away from fancy fonts and clutter")

Strategies for the Web

Microsoft recommends a number of considerations to take into account when designing web sites for older adults; many would seem to apply to print materials as well.[50] Basically, they recommend taking the time to understand the needs of older adults and forgetting cleverness in design. Site designs should be kept clear, legible, and informative.

Layout
- Go for "large areas of white space and small blocks of text." ("Consider internal links within longer pages.")
- Keep layouts, interfaces, and navigation elements similar and consistent throughout.
- Make sure it still works in text-only viewing and resizing.
- "Don't limit window size of your pages." (Allow resizing.)
- "Break topics down into short, succinct pages of no more than two or three screens' worth of info." (to allow public printing of parts people want)
- Design for a TV interface (e.g., TV-safe colors, lower resolutions, different screen proportions).

Style
- Avoid background patterns or floating text over images (even very subtle ones)
- Avoid drop shadows on text.

- Use legible fonts; avoid narrow or decorative fonts or mixing fonts. Most basic and common fonts are best.
- Avoid colors that are exceptionally bright or vibrant (e.g., yellow is difficult to read).
- Animation or quick blinking or flashing are highly distracting to peripheral vision (especially glaucoma or cataracts).
- Make graphical links and buttons large and easy to click on. Avoid double clicking. Enlarge hot area around a link. (re limited motor abilities)
- Remember that many people use computers with slower modems and less bandwidth. Make each graphical element count.

Color
- Choose colors that have differences in "hue, lightness, and saturation."
- "Exaggerate lightness differences between foreground and background colors; avoid using colors of similar lightness next to each other."
- Use "colors from opposite sides of the color wheel."
- Avoid blue-yellow and red-green combinations (re certain types of color blindness).
- Look through a piece of yellow cellophane to test how it might look to an older viewer.

Contrast
- Black and white has greatest contrast. Dark blue and white often felt to have excellent readability. Lighter print or darker background decreases contrast and makes harder to read.
- Use dark outlines if you must use colors of similar value.
- Test pages on a black and white monitor.

Fonts
- Use large type – 12 to 14 points for most seniors; ≥ 16 for partial sighted.
- Limit bold to only a title or key word.
- Limit all caps to only a title or key work (bold is better alternative).
- "Don't use any coding in HTML that will limit ability to set own font, font size, or colors" (re both content and navigation elements).
- "An extra point or two of leading (the spaces between lines of text) will help improve readability…"
- "Make text elements large." "Be wary of navigation bars and other crucial elements of a page that cannot be resized."

General Usability
- Date stamp your pages.
- "Consider archiving old articles and features on your Web site, while maintaining the actual page URL."
- "Setting up a search engine on your site will help users zero in on exactly what they are looking for. Organize archives in a logical manner, by year or by topic, for example, and allow people to search by key words."
- Regularly check all links from your site.
- Test your pages from different perspectives.
- Check how long pages take to download in different situations.

Accessibility (regarding facilitating assistive technologies and special devices)
- Every "image should have an ALT tag that is simple and informative."
- Underline links (and not text) for screen readers to recognize.
- "Make sure links make sense if read on their own…"
- If tables are used, provide an alternate, text-only version of the page (for screen readers).

Educate the User
- Might be a good idea to provide a link or downloadable document that explains how to:

- "resize the cursor"
- "set up mouse controls (including single click control)"
- "set browser preferences"
- "resize icons and fonts"
- let users know about mouse alternatives (e.g., trackballs)
- "reduce eyestrain"

Audio Strategies

Gruca and Schewe recommend speaking clearly and without any competing noise, presenting an undistorted sound.[13] Since high pitched sounds are more difficult to hear, they recommend using deep voices, if possible. They caution against speaking more loudly or accelerating the rate of presentation. Haller recommends enunciating carefully (watching soft consonants in particular).[80] For marketing interviews, Long's recommendations[81] include:

- Interview where there is a minimum of background noise
- Use a voice that is clear and of low pitch
- Don't shout

Similarly, Moschis suggests using sounds with high intensity, low tones (male speakers are preferred), and close-ups. Speak slowly, keep an even rate of speech, and repeat the message. Background noises or distractions should be minimized in broadcast advertisements.[16] Gruber's guidelines for marketing financial services to older adults offer very specific suggestions for improving in-person audio communication:

> The first thing to remember when speaking to someone with a hearing challenge is to look directly at him. Many people who have difficulty hearing will read lips. When speaking with two people at a time it is advisable to seat them so that you will not need to turn your face away from one to speak to the other. The one you are turning away from might not be able to hear what you are saying. Older clients will be more likely to hear what we are saying if we lower the pitch of our voice, speak slowly, enunciate very carefully, and lower the volume of our voice. Our natural inclination when communicating with an older person whose ability to hear is diminished is to speak louder when in fact volume is rarely the problem. Speaking louder rarely increases the chances that our customer will hear what we are saying. In fact, it only draws attention to him, often resulting in confusion, embarrassment, anger, and disruption of his train of thought. However, if he is having difficulty hearing us, we might ask if he would prefer that we speak louder. Sometimes it is appropriate to ask the listener if he has a good ear, and then speak close to that ear. Sometimes the client will deliberately seat himself right next to you in a meeting. For those of us who were trained to always seat a couple at a table directly across from us so as not to miss their eye contact between each other, this can be somewhat unnerving. Perhaps that problem can be solved by seating the clients at a round table with the one with the greater hearing impairment closest to you and the other seated right next to him so that you can easily observe any nonverbal communication between them.
>
> The most important and the most challenging technique is to avoid using high-pitched sounds such as the soft c's and the s's. This takes practice and a great deal of concentration. If you work with a number of hearing-impaired clients you might wish to retain a speech or audio therapist to coach you in these skills. Another possibility is to purchase a mechanical device to keep on hand that the client can use during the meetings to improve his ability to hear you.... Many older people resist wearing a hearing aid, so you might need to work on your skills in this area to improve communication with the hearing impaired. Always avoid meeting with clients in environments with background noise such a restaurants. They only add to your challenge.
>
> If your practice or business requires that you communicate by telephone, you will need to

> observe these rules even more carefully, since the listener will not have the advantage of seeing your face as you speak. He will need to depend entirely on his ability to hear you. Turn off the radio and eliminate other noise, such as conversations in the background, when speaking with clients on the telephone.... Cold calling might become less effective as a larger proportion of our potential clients move into this age category where audio communication becomes a challenge.[90]

Other Format Considerations

Any packets or packages of information or coupons should be easy to open. Arthritis and other conditions prevalent among the elderly can make it hard to open packages and products. PrimeLife focus groups found that even some products aimed at the elderly (e.g., a metal tab on Ensure) were difficult for some.[68]

Message Delivery

Pacing

The pace of information is important. The elderly do better with internal pacing than with external pacing. As one of his guidelines for communicating with the elderly, Schewe recommends giving preference to print media.[14] For product comparisons in bank marketing, Conaway says, "Print is preferred because seniors can refer to the information later and process it at their own pace."[24] Mail interviews are recommended over phone or personal.

The tendency of the elderly to perform other tasks with the television on (divided-attention condition) also may reduce their ability to process detailed information from the television.[91] A decline in cognitive speed (one's rate of information processing) was found to result in a decline in TV advertising response, regardless of clutter.[75] The researchers argue in favor of taking steps to "facilitate information processing" in designing ads for older adults. Hamilton recommends slowing the pace of the commercial when using broadcast media.[92]

If the interview is by phone, then elderly respondents should have a written copy of the questionnaire in advance. For both phone and in-person interviews, keep the rate of question presentation slow.[13] Gruca and Schewe recommend that phone interviewers speak slowly and clearly and be prepared to assist by repeating questions or response alternatives.[13] If possible, the older adult should be sent the questionnaire in advance to allow self pacing.

For marketing interviews, Long also recommends allowing respondents to take their own time – to feel in charge of the timing.[81] Gruber advises financial services marketers to allow older adults to pace themselves and to give them plenty of time to process and respond to the information.[58] Related strategies for taking cognitive changes into account in financial services marketing include speaking slowly, presenting information clearly, and avoiding any irrelevant information.[58]

Repetition

Schewe and Meredith stress repetition as an effective strategy for conveying marketing information to the elderly.[83] When communicating through broadcast media, messages on toll-free telephone numbers should be repeated for elderly consumers due to declines in short-term memory.[16] Long says to provide reminders for pre-arranged marketing interviews.[81]

Gruber recommends leaving financial services ads running for quite awhile. She says that older adults often need to see or hear an ad for six to twelve months before acting on it.[81]

Time of Day

Time of day is an important consideration when presenting older people with information that requires detailed cognitive processing. The elderly appear to process complicated information better in the morning. According to Yoon,

> marketers targeting older consumers might air their commercials as early in the day as is practicable. Television ads, however, regardless of when they are presented, cannot be processed in a self-paced manner. Thus it is unclear whether or not older people will be able to process television ads at any time in a detailed manner, particularly since they are generally slower at processing than younger people.[91]

Gruber suggests taking changes in sleep patterns into account:

> When scheduling meetings, resist encouraging the client to meet with you other than at a time convenient for him. There are probably times during the day when he tends to be less alert. Meeting during those times should be avoided, since the client needs to be alert in order to interact effectively with you. In addition, he might not be alert enough to drive during certain times of the day. I find that most older clients prefer, or insist on, meeting with me in midmorning or early afternoon. Most will schedule meetings so as to avoid rush hour traffic and to avoid missing meals.[93]

Gruber offers an example of a geriatric care manager's television strategy for promoting her practice. She has her ads aired at different time slots to target the patient, adult children, and the patient's medical providers. Adult children, for example, are targeted by ads aired at 8:00 a.m. on shows such as "Good Morning, America." Ads also are placed to reach hospital patients and medical providers making rounds.[58]

Sensitivity

Hamilton recommends providing sensitivity training (including sensory deprivation techniques) to staff.[92]

Personal interviewers should receive training for interviewing older adults. The interviewer should be prepared to be patient and helpful and to include more social interaction, more repetition and clarification, and longer warm-up periods. The interview will take longer than it would with younger adults. Every effort should be made to reduce distractions; let the respondent set the pace; answer questions; use imagery, probing, and aided recall; and separate out the key questions.[13]

If seminars are used or any events which older people come to, frequent continence problems should be dealt with by offering frequent breaks and plenty of restrooms. Moschis uses the example of tour bus operators.[16] For bank marketing, take ease of entry and navigation into account.[24] Equilibrium is another biophysical change to take into consideration in one-on-one settings. Gruber's recommendations for marketing financial services to the elderly include:

> We can reduce his anxiety by moving more slowly when walking to or from the meeting area, offering to take his arm as he moves about or when getting in and out of a chair, and by offering to carry his beverages or belongings. In some instances it might be advisable to accompany him to his car.[94]

Awareness of possible medication side-effects can be helpful also:

> Many clients will be taking or experimenting with one or more kinds of medication. This can create side effects such as thirst, headaches, fatigue, drowsiness, changes in energy level,

> shortened attention span, hunger, fluid retention, mood changes, and the need to eat at regular intervals. There is not much we can do to improve the client's comfort level in these instances. However, just being aware that an older client is likely to be on some sort of medication helps to remind us that the situation might call for more empathy and patience.[93]

In marketing long-term care insurance, avoid the temptation to patronize, particularly if the consumer is hearing impaired or very old. Treat them as the experienced consumers they are and respect their intelligence and ability to make sound decisions.[95]

Action Orientation

The tendency to search less for information in late life, combined with the tendency to have increased difficulty processing information, makes activities such as product evaluation less likely. According to Moschis, "Declining ability to process information and evaluate products and services may account for the older person's greater susceptibility to persuasive messages and to less than optimal choices."[96]

Weaver argues that, in contrast to younger adults, older adults' purchasing decisions are influenced less by peer pressure, based more on desire for experiences than possessions, and utilize more facts if available (seniors like to review facts before buying).[97] He suggests making the effort to build relationships with older consumers but not to single them out (as with senior discounts).

For direct mail marketing to older consumers, Mundell recommends making products easy to return, providing toll-free numbers, and training phone staff to counsel the elderly in the use of the products.[98] Lewis' guidelines for direct marketing to the elderly suggest using coupons as response devices, using bargains to motivate purchases, and giving an 800#.[79] In his book, he recommends making response easy and including a coupon, with ample room for entries. He also suggests that a neatness complex will cost you response.[99] Hamilton too recommends guarantees such as two-step sales or trial offers and calm repetition of easily remembered 800 numbers.[92] He suggests having the offer come from a personality, affinity group, or company the older customers trust and establishing credibility by building a relationship. For pharmaceutical advertising campaigns to pay off in prescriptions, promotional activity targeting physicians needs to accompany direct-to-consumer advertising.[48]

For financial services marketing, Kennett, Moschis, and Bellenger suggest addressing consumer behavior changes through special-assistance services such as home delivery and pick up of documents and ensuring the facilities and services are physically convenient for older adults.[82]

Many of these recommendations are echoed in the CMCS' proposed sales strategies for ailing outgoers and frail recluses. Their research suggests that an effective sales promotion mix for ailing outgoers would include money-saving incentives (e.g., price reductions), free samples, coupons, and personal selling efforts. Strategies for the very old would be similar, combining money-saving incentives, free samples, personal selling efforts, and advertising.[15] Similarly, Moschis et al. suggest the following be included in strategies for ailing outgoers: coupons, senior discounts, liberal returns, policy rebates, specials (food), special assistance services such as valet parking, senior discounts (restaurants), wide assortment, special assistance, pick-up service for returns, sales (clothing), stock well known brands, sales, discounts (pharmaceutical products), special group membership discounts (hotels), offer variety of payment systems/plans, membership discounts (insurance), low price sensitivity (housing).[65]

He found that frail recluses are less likely to report using product information before purchasing or using the product and most likely to report difficulty opening containers and packages.[35] The following strategies should be included for frail recluses: senior discounts (financial services), availability of several payment systems (health care), accessibility to other services, a la carte pricing of homecare services (housing).[65]

Response mechanisms should be appropriate to the communications behavior of the targeted audience. Looking at channels of communication used by the elderly for outbound communication, a Roper Starch report for AARP provides survey data on percent of people in different age groups who say they use specified methods to "communicate."[61] As shown in the table below (based on a 1996 survey), the telephone is by far the most popular way to communicate; 95% of seniors aged 65 and older report using this method of communication. Fifty-four percent report using mail, while only five or less percent report using each of e-mail, computer, and the internet.

Table 5: Mature Americans Explore New Communications

	% say use each to "communicate" (May, 1996)		
	40-49	50-64	65+
Telephone	96	96	95
Mail	60	51	54
Fax machine	25	21	8
Computer	22	15	5
E-mail	16	13	5
Newspapers	11	15	10
On-line/Internet	11	8	4

SOURCE: Roper Starch's report, "Technology receptivity and mature Americans: An analysis of 50-64 year-olds and 65-plus as compared to early boomers," 1998.

The physical and cognitive changes frequently associated with aging may increase the need for assistance in using the information and for further follow-up. A study for the Whirlpool Corporation found a high reports of assistance from caregivers in purchasing decisions ranging from appliances to gifts to health services. Moschis suggests that education on product use might be provided for elderly consumers or their caregivers, and offers the example of educational materials developed by the National Council on Aging on how to take medications properly (to be distributed through 1,300 senior centers). The development of products and materials that are easy to open is also suggested.[16] Another study found that the value place on special store assistance increases with age. More of the oldest old (75+) than others expressed preference for having a personal advisor available, valet parking, and a liberal return policy. Frailty, as well as age, appeared to enter in, since the ailing outgoers were most interested in the availability of personal advisors than the other lifestage segments.[15]

In the field of accounting, Smith advises those providing services to older adults to follow-up meetings with correspondence, reminders, and offers to review recommendations and to accompany the older clients to meetings with other advisors.[28] Gurlik encourages long-term care insurers to prepare for telephone follow-up:

> In administering business on policies for the very old, companies need to be prepared for a major increase in phone volume directly from consumers. Potential policyholders will call to validate information they have been given by the agent prior to purchasing the policy. Even after the policy is in force, the policyholder or his/her child will call to clarify contract language or to seek answers to hypothetical situations. The benefits department may experience a similar increase in calls directly from policyholders and/or their families. Again, the caller's need is for thorough explanation and validation of information received.[95]

Study results also suggest that many elderly consumers will engage in some activity to resolve consumers problems, they also suggest that the likelihood of some action declines with age.[16] The ability to seek and handle large amounts of new product information prior to a purchase declines with age, as does attention to guarantees and warranties and ability to choose among different brands. Also with age, the tendency to regret purchases increases slightly, the propensity to report poor product performance declines, and the propensity to spread unfavorable, word-of-mouth communication as a result of product dissatisfaction declines.[15] While older consumers are more vulnerable to misunderstanding product information as well as to unfair business practices, they are likely to have less energy and knowledge to seek remedy. Moschis urges businesses to change practices to help older consumers respond to commercial stimuli. Because the older population "is likely to rely more on food labels and be unable to understand the accuracy of such claims as a result of information-processing deficiencies," great care should be taken to have accurate labeling. The accuracy of advertising claims should receive attention. One legislative example is the requirement in Florida and some other states that insurance spokespersons be licensed agents. Other regulations might be developed to require that sales agents more explicitly describe product performance and liability. Other suggestions include the promotion of consumer education campaigns at the local level by groups such the Administration on Aging and AARP, visual aids on products and in stores to indicate the product is for persons with certain physical or health needs, and government and consumer-sponsored "seals of approval" for companies most sensitive and responsive to older consumers' needs.[16]

Effectiveness Evaluation

Little data was found in this literature documenting the effectiveness of the communication strategies recommended, although the underlying assumption was that the recommendations were supported by sales figures. Testing the effectiveness of techniques often was suggested as part of strategy development. Since marketing strategies are viewed as product and segment specific, effectiveness too should be determined for the particular product and segment.[65]

II. FIRST LEVEL SCAN: SUPPLEMENTAL HEALTH COMMUNICATIONS TECHNIQUES

Health educators and health care providers also engage in communications with the elderly, including the frail and oldest old. It is these fields, more than business and marketing, that appear to have focused attention on literacy, cultural, and language barriers to communication. The objectives of communication assistance and follow-up are extended towards motivating actions. They also report different approaches to measuring the effectiveness of communications techniques.

Communicating with People with Low Literacy

Census figures show that by 1990 only 3.5 percent of the 65+ population showed high functional illiteracy by the census definition of failure to complete more than four years of elementary education.[1] Health services research, however, suggests that much larger proportions of all adults,[100,101] and the elderly in particular,[102-106] have serious difficulties with health information. Gazmararian et al. found that one third of the English-speaking respondents in a sample of elderly Medicare managed care enrollees had less than adequate health literacy.[102] Adequate health literacy was defined as the ability to "successfully complete most of the tasks required to function in the health care setting." In contrast, those without adequate health literacy included 24 percent with inadequate literacy and 10 percent with marginal literacy. The respondents with inadequate health literacy were frequently unable to ready the simplest materials such as prescription bottles, appointment slips, and the instructions for preparation for an upper gastrointestinal tract radiographic procedure (written at grade level 4.3). While the Medicare beneficiaries who were marginally health literate did better on these tasks, they had difficulty reading and understanding a Medicaid rights and responsibilities passage (written at grade level 10.4). The proportion of beneficiaries without adequate health literacy increased with age, lower education, occupation, African American race, Spanish language (using Spanish materials), and cognitive impairment. Among individuals 85 and older, 58% were inadequately literate and 13% were marginally literate. In multivariable regressions, after accounting for education and cognitive impairment as well as other characteristics, individuals 85+ had an adjusted odds ration of 8.62 for having inadequate or marginal health literacy; individuals with mild and severe cognitive impairment had adjusted odds ratios of 5.24

and 32.81. Research also suggests that people with low health literacy are in poorer health, have less health knowledge, use more health services, and have greater health needs than people with adequate health literacy.[103,107-109]

Communications experts emphasize that low literacy is not a matter of readability alone: rather, low literate people deal differently with all types of communication – written, oral, and visual – than do people with adequate literacy. Moreover, comprehension is not just a matter of reading. In discussing clinician communication with cancer patients, Doak et al. assert,

> For a patient, the basic condition required for understanding and activating the memory system is the existence of a reasonable match between the logic, language, and experience in the information and the patient's logic, language, and experience. In other words, patients need to have advice make sense to them and be logical from their perspective. They need to see how the advice fits into their current lifestyle, is achievable, and is worth their effort to implement it.[110]

Low-literate people tend to think in concrete not abstract terms, literally interpret information, have insufficient language fluency to understand and apply information from print materials, and have difficulty processing information (e.g., interpreting a bus schedule).[111]

While appropriate readability levels are a critical part of matching the information to the patient's language, they do not guarantee relevance to the person. Certain types of words, e.g., concept words, category words and value judgment words, for example, may be readable but still difficult to understand. Mismatches in logic and experience particularly occur when people are expected to learn behavior information (what to do) by drawing inferences from facts. Often the behavioral information is obscured by factual information which is seen as less relevant.

> The information in cancer advice and instructions is often organized according to the Medical Model, the same style used in curricula for health professionals. This approach emphasized facts and is directed toward a knowledge goal rather than a behavioral goal. Typically, it is only late in the patient instruction that attention is given to behavioral change or action to be taken by the individual.[110]

The challenge is to overcome these mismatches and to make the information more understandable. "Despite patients' literacy problems and information mismatches, those with low literacy skills nearly always have adequate intelligence. For most people, new information can be learned by linking it with already known information and by making it relevant to their situation.[110] Techniques are available for making the information understandable, facilitating patient recall, and encouraging patient feedback and interaction. The information should be explicit with priority given to information needed for patient action and motivation. Doak et al. counsel clinicians to:

- "limit the advice to the key information the patient needs at this time."
- "partition the information into easy-to-understand parts if extensive information is given."
- "provide visual or verbal images to accompany each of the partitioned information parts," present the context first before giving new information."
- "make instruction interactive,"
- "offer examples, especially visual examples: use testimonials from others," and
- "tailor the message" to the person's needs and characteristics.[110]

While these guidelines were intended for in-person doctor-patient communications, most apply to communication materials as well. This research team quoted above proposes the following strategies for cancer education materials:

Planning steps:

- "Assess the educational needs of the target audience,"
- "Limit the educational objectives to one or two,"
- "Focus content on behaviors rather than facts or principles,"
- "Present the context first so readers have a framework on which to hang the new information that follows,"
- "Build to complexity by providing information in small "chunks," with interaction after each chunk,"
- "Include reader interaction in the form of questions or checklists directed to the reader," and
- "Select visuals and layouts that match the culture and gender of the target populations."

Writing steps:

- Write "in active voice and conversational style,"
- Use "common words,"
- Employ "advance organizers (e.g., captions, headers),"
- Give examples and provide a glossary, and
- Select "an appropriate type style and thoughtful text arrangement."

For visuals in texts:

- "Place the visual adjacent to the text to which it refers,"
- "Explain the visual within the text," and
- "Use captions."

Field testing:

- "Design a questionnaire specific to the material being tested,"
- "Select a test sample from the intended readership,"
- "Interview respondents,"
- "Evaluate responses and revise."[112]

The website of the National Cancer Institute includes a publication, "Clear and Simple," to aid people in designing effective print materials for persons with low literacy.[111] They essentially present detailed suggestions and elaboration of the steps outlined above. For content and visuals, they suggest that the material be interactive; present "how to" information; use peer language whenever appropriate; use familiar words and sentences which are simple, specific, direct, and in the active voice; present ideas which are clear and logically sequenced, use only a limited number of concepts per piece; provide concrete examples rather than abstract concepts; and highlight and summarize important points in the text. The layout should include advance organizers or headers which are simple and close to the text; a balance of white space with words and illustrations; upper and lower case letters in the text; underline or bolding rather than all caps for emphasis; and type style and size (at least 12 point) which are easy to read. Visuals should be relevant to the text, meaningful to the audience, appropriately located, directly related to one message, have captions, and use adult images. Photographs and illustrations should be simple and free from clutter and show familiar and culturally relevant images. Circles, arrows, or other such cues should be used to indicate key information. Styles and colors should be pretested with the audience. The reading level of the material should be based on a readability analysis.[111]

Doak, Doak, and Mead suggest that most healthcare material for the public be written at the 5th grade level, but that such materials may still be too difficult for many individuals and that visuals or verbal instructions may be necessary.[112] The National Work Group on Literacy and Health says the written materials for low-literacy individuals should be at the 5th grade level or lower and supplemented by nonwritten communications; narrative or dialogue formats are suggested. The language should be that spoken by the target audience.[103] Researchers focused on doctor-patient communication of chronic disease information stress the need for oral communication and visual presentation, as well as appropriate print materials.[108] In promoting health education materials and activities which do not rely on print materials, the AMC Cancer Research Center reviews such alternatives as posters, fotonovelas, role playing, theater, songs, storytelling, games, videotapes, slide shows, interactive multimedia programs, audiotapes, and radio docudrama.[113] Investigators of mammography knowledge among low-literate, low income women suggest tailored information programs using peer groups to develop the education materials, targeting family, and making use of nonprint methods such as stories, videos, and verbal education by peers.[109] Other cancer education efforts targeting low-literate older adults are utilizing peer helpers as well.[114]

Effectiveness Studies

According to the AMA Ad Hoc Committee on Health Literacy for the Council on Scientific Affairs, some research evaluating simpler written education materials have found improvements in people's knowledge,[115-118] but none has been published showing improved health outcomes.[107] Research focused on colon cancer education found that patients who received either an intervention using printed materials or one using videotaped materials demonstrated more knowledge following the interventions than did control patients.[119] Evaluations of individual interventions aimed at older adults also show some positive results.

Research on the effectiveness of a cancer education program presented to senior citizens at churches and synagogues showed an increase in the discussion of cancer tests between patients and their physicians after the intervention. The program consisted of a slide and tape presentation, a nurse-facilitated group discussion, and booklets summarizing available screening tests. Both the printed materials and the slide show were designed for older adults with limited literacy or hearing or vision impairments, and program techniques included repetition, modeling, and action instructions. (The education level of the respondent also had a significant impact on program results.)[120] Enrollees in a locally designed osteoarthritis education program and manual for low-literate, low income older adults, conducted by trained leaders from the community, showed increased knowledge and improved exercise ability after the program concluded. The classes included activities and hands-on demonstrations, and the manual was written in a conversational script format at an eighth grade reading level.[121] A smoking cessation intervention for African-American, uninsured, underinsured, and low-literate elderly outpatients demonstrated a 23 percent quit rate. The intervention consisted of a 7-week behavior modification course with low-literacy education materials that were culturally sensitive.[122] Cholesterol knowledge of both low-literate and adequate-literate, low income older adults increased after a cholesterol education videotape.[123]

Action-Oriented Objectives

While the business and marketing communications strategies are directed towards activating a consumer decision to purchase a product or service, some health communications strategies contain more of an explicit emphasis on facilitating information processing that results in action as well as knowledge. The low-literacy strategy of focusing the message on behavior rather than facts is echoed in other areas of health communications. In this approach, the information is organized to first inform the audience of the problem or risk, to then state what actions the audience can take to resolve the problem or reduce the risk, and to relay the benefits and costs of the actions. This organization contrasts with a medical sequence which might first include definitions, statistics, and detailed disease process, diagnosis, and treatment descriptions.[112]

Maibach and Holtgrave define public health communication as "the use of communication techniques and technologies to (positively) influence individuals, populations, and organizations for the purpose of promoting conditions conducive to human and environmental health."[124] They describe five current approaches: social marketing, risk communication and behavioral decision theory, entertainment education, media advocacy, and interactive decision support systems. As do marketing strategies in the business community, social marketing strategies include segmenting the target audience, profiling the segments, and tailoring the message to each segment. The social marketing approach is described as a "social change management strategy". Some social marketers are using "stage of behavior change" models to segment audiences. Most processes of behavior change involve several sequential stages. The strategy here is to profile a segment by its current stage of behavior change and tailor its message to move that segment's members to the next stage of behavior change.[124] In addition to the tailored message design, the components of this health communication approach include the pathway, the product (the behavior change which is the objective), and the tangible and intangible costs. The NCI Making Health Communication Work: A Planner's Guide says, "Lessons learned from social marketing stress the importance of understanding the target audience and designing strategies based on their wants and needs rather than what good health practice directs that they "should" do."[125] The NCI has adopted a "consumer-based health communications (CHC) strategy" targeting older adults as a segmented population and tailoring the message to this population's underlying fears of cancer.[126]

Effectiveness Studies

A recent study targeted elderly women with a low cost mail intervention designed to increase knowledge of the Medicare mammography reimbursement benefit and other low cost screening alternatives. The researchers evaluated the effect of the intervention on mammogram use in the ethnically diverse target community and found that the odds of mammography screening were significantly higher among African-American and Hispanic women who received the intervention (OR = 1.97 and 2.33 respectively) compared to controls. The intervention consisted of a bilingual mailed packet which included information on the new subsidized Medicare screening benefit, the risk of breast cancer for older women, and the American Cancer Society Low Cost Mammography program. The packet also included a mammography facility guide to their community which provided specific information on cost, acceptance of Medicare and MediCal, whether a doctor referral is required, address, and phone number. The authors describe the intervention as

> based on the Health Belief Model (HBM), which includes increasing the subject's awareness of vulnerability (to breast cancer) as well as providing cues to action (where to get breast cancer screening). A targeted mailing was designed especially for older women who we knew to have limited resources as a group.... One of the main barriers to screening, its cost, was addressed, and both educational and behavioral goals were embedded in the intervention.[127]

A different mammography enhancing effort targeted older women living in senior citizens' housing facilities. Different groups of women received different combinations of a Medicare mammography benefits flier, a community education program, and a mammography appointment with transportation to the appointment. Mammography results were modest and primarily in women who were already predisposed to be screened.[128] A pilot demonstration study in rural North Carolina used an intensive social networking strategy centered around lay health workers to reach their target audience of older black women.[129]

While not specifically targeting the elderly, other health communications efforts have targeted specific subpopulations and tailored language and culturally appropriate strategies to communicate health information and promote actions or behavior change. A number are utilizing lay health workers or indigenous leaders as part of the communications strategy. Examples include an intervention to promote cancer screening among Vietnamese-American women,[130] one to increase cervical cancer screening in Native-American women,[131] and a program to provide cancer education to deaf members of the community.[132] A program to provide cancer information to Asian Americans trained ethnically and linguistically compatible students situated in Asian grocery stores.[132] Very intensive media-led interventions to reduce smoking among Vietnamese-American men and to increase cancer screening among Vietnamese-American women showed modest success.[133,134] Presentation in primary language and identification of culturally-specific needs are critical components.[135]

In discussing the modest impact of a cancer education program for older adults, Keintz et al. stress the need for reinforcing health education communications, especially that directed towards the elderly.[120]

Princeton Survey Research Associates for Rodale Press report that 54% of adults say they have changed a health behavior as a result of seeing, hearing, or reading a story in the media. Thirty-five percent say they have talked with a doctor about a medical condition of interest to them, because of something in the media; 28% asked a doctor about steps to reduce their risk of a health problem, and 23% about a new drug or treatment. Respondents in this survey were more likely to get information about health from television (39%) or a healthcare professional (37%) and least likely to get such information from the Internet (13%). Women and adults over 50 paid most attention to news stories about health.[136]

Caregivers' Needs and Preferences

Studies suggest that information is an important need of caregivers of mentally ill and persons with Alzheimer's Disease. Family caregivers express the need to educate themselves about Alzheimer's Disease and to obtain support and counseling. Over 70% of the caregivers in one study indicated that written material about the disease was extremely important at the time of the diagnosis and over 50% indicated that an educational video was extremely important.[137] In a survey of family members of mentally ill adults, the most preferred formats for family psycho-education were phone consultations with a professional and professionally led support groups and the most preferred leaders were psychiatrists, psychologists, and social workers.[138] From a case-management point of view, education should be provided through videocassette, audiocasettes, printed materials, and one-on-one sessions to enhance family caregivers self-efficacy.[139]

A national survey of informal caregivers found that caregivers were most likely to *seek* information about caregiving from health professionals (62%) and friends, relatives, and other caregivers (55%). Only 7% sought information from the internet or via the computer. (Media sources were not included). When asked about their preferred channels of information about caregiving and health issues, 85% indicated written materials; 69% watching/listening to television, radio, or tapes; 57% talking over the telephone; 55% face-to-face meetings or presentations; and 34% internet or computer (multiple responses were permitted).[140]

III. SECOND LEVEL SCAN: INTERVIEWS WITH REPRESENTATIVES OF PRODUCT MANUFACTURERS, MARKETING AND ADVERTISING FIRMS, AND SERVICE ORGANIZATIONS

In the second level scan, we conducted telephone interviews with executive-level representatives of firms with products and services of interest to the frail elderly. Through these interviews, we attempted to gather more detailed information on organizations' strategies for communicating with this population.

Only a small percentage of respondents identified frail older adults as their primary target population group, although the majority of those contacted said that frail older adults were included as part of their target group. A small percentage of respondents reported excluding frail older adults from their target population due to liability reasons. The majority of respondents also included and specifically targeted spouses, family members, caregivers, medical personnel (i.e., geriatricians), and other service providers as part of their target population.

Two respondents, in particular, most closely *targeted* the frail and oldest elderly. Life Source Nutrition, is a company which markets a nutritional meal plan designed for adults with diabetes, congestive heart failure, and coronary artery disease. They have found that frail, homebound seniors 75+ with multiple co-morbidities appear to be the biggest group of users of their product.[141] Santa Cruz Senior Citizens Legal Services, a service agency, also reported that their program primarily is aimed at serving older adults who are frail, disabled, or poor.[142]

Audience Analysis

The interviews suggested that assessing the needs of older adults is best done by going to places where older adults congregate (i.e., to senior centers, nursing homes, residential facilities); interviewers need to listen to what older adults are saying and should not be narrowly focused on getting their questions answered. One marketing firm recommended open-ended questions as an effective means for understanding the underlying messages and concerns of older adults.[143] Some respondents[144] choose to rely on the experience of their employees with the aging population and their participation in the aging network to understand the needs of older adults. Others (particular marketing and research firms) reported utilizing survey research, focus groups, and in-depth interviews to understand the needs of their target population. The company that produces nutritional meal plans, for example, has surveyed users of their products and conducted focus groups with caregivers and individual consumers.[141] The representative of a marketing research firm said they do all of their research with older adults at senior centers.[145] An advertising firm relies both on secondary research, e.g., literature reviews, and primary research such as talking with providers, focus groups, and survey research on response to ads.[146] A small percentage of respondents, such as the organization funded to provide a specific service, or companies selling specific products, had not undertaken any formal efforts to understand the needs of their target population.

Outreach Strategies

Marketing firms reported developing marketing or communication strategies only after researching and profiling their client's target population. Companies with products were more likely to use the yellow pages and the internet, especially if their target population includes caregivers. Other pathways include radio, community events, public speaking, TV, print, telemarketing, and direct mail. Print materials were especially recommended because they provide a mechanism to communicate with older adults in a clear, concise manner that allows them to return to the information as often as needed. A marketing research respondent recommended print advertising as an effective way to communicate with older adults rather than television or radio which, in his view, does not give older adults enough time to process, absorb, and return to information. He reported that large print and direct mail are especially effective for older adults who are visually impaired.[145] A legal services representative, emphasized that older adults' difficulty remembering makes telephone calls insufficient for communicating legal information. They put everything in writing.[142] The firm selling nutritional meal plans, on the other hand, does use direct response television advertisements. They choose to advertise in local papers, including both general papers and those designed specifically for the senior community; through direct mail and endorsed mail through other companies.[141] Similarly, pathways that allow for one-to-one communication such as community events, public speaking, or telemarketing were highly recommended because they give the older adult a chance to make contact and develop a relationship with a person or agency and the ability to ask questions as needed.

One marketing respondent recommended a "surround sound approach" to communicating with older adults. Emphasizing that seniors are not all the same, this approach utilizes different lifestyle avenues (places where seniors go for recreation, to shop, to get health care, etc.) to maximize message delivery.[147] An advertising respondent recommended casting a wide net to catch the elderly's attention. She suggest using direct mail ("the best"), broadcast spot markets in geographic areas with higher proportions of the target population, newspapers in these markets, administrators of nursing homes and managed care facilities, and geriatricians.[146] Another respondent stressed that marketing through multiple media was an effective strategy for delivering messages to diverse elderly, including those who are hearing or visually impaired.[148]

Marketing to older adults via the internet was mixed. A proportion of respondents chose to market their services via the internet; however, these respondents are primarily targeting caregivers, whereas other respondents report the internet to be an ineffective mechanism to market and communicate with older adults, especially frail older adults. Companies with specific products were more likely to market or communicate via the internet (especially when targeting family members or caregivers).

Service agencies tended not to formally market or advertise their services and relied on word of mouth and referrals. The legal services agency reported that their minimal outreach involved posters; talking with groups in retirement homes, mobile home parks, and other residential groups; and targeting people who work with seniors.[142] The Microsoft Senior Initiative, designed to keep older adults in contact with the latest technology, works with the aging network, colleges, and public-private partnerships to educate others about their services and also does not engage in formal marketing techniques.[149]

Marketing and Content Development

Marketing firms were consistent in emphasizing the need to reach older adults on their level in a way that is not condescending. Not many detailed their themes or approaches, however. One advertising firm recommended the use of symbols, while stressing that they should not be depressing or patronizing. Their experience suggested that older adults respond well to images of older people who are happy, healthy, and functional; they prefer to see a picture of life as they would like it to be without extremes such as sky diving.[146] A mortuary reported trying to sensitively market trust and comfort without talking about their specific services.[148] An advertising respondent stressed that documents need to be designed according to the literacy needs of the audience (without being condescending or too obvious). A marketing specialist emphasized the need to provide sufficient information to meet older adults' need for evidence and information depth prior to decisionmaking. Her firm provides brochures and information packets that allow seniors to spend as much time as they need with the information.[147]

Format Design

A small percentage of respondents made no special efforts to design or tailor documents or publications specific to the needs of older adults. The majority of respondents made some effort to develop publications specifically for this target population and a small percentage of respondents (primarily firms which specialized in marketing to mature consumers) followed protocols determined from previous research with this population. General themes included use of large font size, color contrast, white space, and simple messages often made more effective with visual examples. Other practices included limiting the amount of information presented so the document is not overwhelming and using language that does not contain abbreviations or jargon.[144,147] One marketing firm recommended putting key points in text boxes.[143]

The marketing respondent who addressed the issue of auditory presentation stressed that the message should be short and simple and presented clearly and loudly. Vocabulary must be sensitive to older adults.[147]

Action Orientation

The majority of private companies and businesses contacted seek to develop relationships with older adults. Marketing firms have developed entire strategic plans on how to develop and maintain relationships with this target population. One marketing firm described the customer loyalty programs they utilize to allow continued dialogue to take place between the consumer and marketing client. This program may include the formation of a club with discount offers, newsletter, or courtesy phone calls to keep in touch.[147] The majority of respondents reported providing follow-up or information phone numbers on printed materials to encourage older adults to call for additional information. Once an older adult calls for more information they communicate with sale representatives often trained with "senior sensitivity" who know how to listen and develop relationships with older adults. These "bounce back mechanisms" also are used for tracking. Companies seeking to maintain long term relationships will develop a need to communicate with older adults often. For example, the nutritional meal plan company only takes product orders for a two week time period so that the consumer is forced to come in contact with a company representative twice a month. Other companies and service agencies will follow-up with older adults about referrals given or products orders which in turn may generate additional business.

One marketing company representative believes that grass roots communication most effectively persuades and influences a decision to act. While mass media can draw attention to products, in their view, older consumers frequently do not act even after hearing the same message over and over again from the mass media. One to one marketing on a local level (e.g., seminars, advertising and marketing programs done at senior centers or at senior expo events) allows the company to provide the in-depth information more effective in stimulating consumer action.

Effectiveness Evaluation

The majority of private companies and businesses contacted monitor product effectiveness by evaluating product demand, repeat business, sales figures (including for customer targets), customer complaints, and returned products. An alert system company additionally monitors the quality of the calls.[150] Marketing firms usually determine their effectiveness by measuring their client satisfaction and ability to meet marketing goals. Often other companies are hired to determine the actual effectiveness of the individualized product. Consumer response rate may be measured if the client advertisements asked people to respond. Anecdotal information is also often collected from telemarketers who sell products via the phone. Service agencies evaluate the demand for their services, the effectiveness of the services (i.e., legal agency examines effectiveness of legal services provided routinely and surveys a client sample) or the attendance at seminars or educational classes. Finally, some companies report more formal evaluations of effectiveness, including focus groups, survey research, pre-and post-evaluations, and telemarketing.

Age Venture News Service, an internet newsletter for older adults, uses a program called website garage to evaluate how its website compares to others with respect to traffic, readability, spelling, image size, and the time it takes to log on to the site.[144]

CHAPTER 4. CONCLUSION

Many of the communication strategies identified by this environmental scan are applicable to all people, not just the frail and oldest elderly. As the Primer that accompanies this report notes, many are basic principles of good communication. While they may be good for everyone, these strategies are critical, however, for communicating with people who are more vulnerable to communication difficulties.

Many of the same principles outlined in this report apply whatever the cause of the communication vulnerability, e.g., aging processes, sight or hearing impairment, other physical frailties, cognitive impairment, low literacy, language differences, or cultural diversity. In particular, many of the suggestions for format design fall into this category. Other strategies, however, are tailored to specific needs generated by aging and frailty. The elderly population is very diverse with respect to such needs (hearing, sight, cognitive processing, motor performance), therefore, the recommended strategies vary accordingly. For example, although print materials may facilitate cognitive processing for many individuals, they may be inappropriate for individuals with sight impairments. A recurring theme, therefore, is the advisability of multiple strategies across many communications channels.

Our environmental scan identified very few strategies for communicating with caregivers. While the basic strategies for good communication undoubtedly apply to caregivers, some of the strategies tailored to the specific needs of elders may not. However, the use of multiple communication strategies to meet the diverse needs of the frail elderly will, by virtue of their breadth and diversity, reach their caregivers, as well as most of the adult population. Further analysis of the communication needs related to the caregiver role and characteristics would be useful.

APPENDIX 1
Environmental Scan Search Strategies

Search #1

Databases searched:

MEDLINE
HEALTHSTAR
AGELINE
ABI/INFORM
IAC Management Contents
IAC PROMT
Business and Industry Database

Time Period Covered: 1990-1999

Search Strategy:

“AGED, 80 AND OVER” OR “85+” OR “OLD OLD” OR “OLDER ADULTS” OR “OLDEST OLD” OR “VERY OLD” OR “AGED” OR “AGING” OR “AGE” OR OLDER PEOPLE” OR “ELDER CARE” OR “MATURE MARKET” OR “FRAIL ELDERLY” OR “VULNERABLE ELDERLY”

AND

“COMMUNICAT-“ OR “COMMUNICATION!” OR “SPEECH” OR “COMMUNICATIONS MEDIA!” OR “MARKET-“ OR “ADVERTIS-“ OR “MASS MEDIA” OR “MERCHANDIS-“ OR “DOCUMENT DESIGN”

AND

ENGLISH LANGUAGE

AND

COUNTY OF PUBLICATION = UNITED STATES

Search #2:

Databases searched:

INVESTEXT MARKINTEL RESEARCH REPORTS

Time Period Covered: 1990-1999

Search Strategy:

“VULNERABLE ELDERLY” OR “FRAIL ELDERLY” OR “OLDEST OLD”

Search #3

Databases searched:

AGELINE

Time Period Covered: 1990-1999

Search Strategy:

"85+" OR "FRAIL ELDERLY" OR "OLD OLD"

AND

"INSTRUCTIONAL MATERIALS" OR "INFORMATION RESOURCES" OR "INFORMATION DISSEMINATION" OR "EDUCATIONAL NEEDS"

Search #4

Databases Searched:

AGELINE
PSYCHINFO

Time Period Covered: 1990-1999

Search Strategy:

"ELDERSPEAK" OR "ELDER SPEAK"

Search #5

Databases Searched:

Dissertation abstracts

Time Period Covered: 1990-1999

Search Strategy:

"FRAIL ELDERLY" OR "VULNERABLE ELDERLY" OR "OLDEST OLD"

Search #6

Databases Searched:

Management Contents

Time Period Covered: 1990 - JULY 1999

Search Strategy:

"AGED CONSUMERS"

Search #7

Databases Searched:

ABI/INFORM

Time Period Covered: 1990 - JULY 1999

Search Strategy:

"CONSUMER EDUCATION"

AND

"OLDER PEOPLE" OR "ELDER CARE" OR "AGE" OR "AGING" OR "AGED" OR "FRAIL ELDERLY" OR "VULNERABLE ELDERLY" OR "OLDEST OLD"

Search #8

Databases Searched:

ABI/INFORM

Time Period Covered: APRIL 1999 - JULY 1999

Search Strategy:

"FRAIL ELDERLY" OR "VULNERABLE ELDERLY" OR "OLDEST OLD"

Search #9

Databases Searched:

MEDLINE
HEALTHSTAR

Time Period Covered: 1990 – 1999

Search strategy:

[“CAREGIVER-“ OR “CARE GIVER-“] AS SUBJECT HEADINGS

OR

"HOME NURSING" AND "FAMILY" AS SUBJECT HEADING]

AND

"COMMUNICAT-" OR "INFORM-"

AND

"AGED" (EXPLODED) OR "ELDER-"

ENGLISH LANGUAGE ONLY

Search #10

Databases Searched:

ABI/INFORM
BUSINESS & INDUSTRY DATABASE

Time Period Covered: 1990 - 1999

Search Strategy:

"CAREGIVER-" OR "CARE GIVER-"

AND

"COMMUNICAT-" OR "MARKET-" OR "ADVERTIS-" OR "MEDIA" OR "MERCHANDIS-"

AND

"AGED" OR "ELDERLY" OR "OLDEST OLD" OR "OLDER ADULTS"

Search #11

Database Searched:

AGELINE

Time Period Covered: 1990 - 1999

Search Strategy:

"CAREGIVER-" OR "CARE GIVER-"

AND

"COMMUNICAT-" OR "MARKET-" OR "ADVERTIS-" OR "MEDIA" OR "MERCHANDIS-"

Search #12

Databases Searched:

MEDLINE
HEALTHSTAR

Time Period Covered: 1990 – 1999

Search Strategy:

"HEARING" IN TITLE OR SUBJECT HEADING

AND

["COMMUNICAT-" OR "INFORM-"] IN TITLE OR SUBJECT HEADING

AND

"AGED" (EXPLODED) OR "ELDER-"

ENGLISH LANGUAGE ONLY

Search #13

Databases Searched:

ABI/INFORM
BUSINESS & INDUSTRY DATABASE

Time Period Covered: 1990 - 1999

Search Strategy:

"HEARING" OR "DEAF-"

AND

"COMMUNICAT-" OR "MARKET-" OR "ADVERTIS-" OR "MEDIA" OR "MERCHANDIS-"

AND

"AGED" OR "ELDERLY" OR "OLDEST OLD" OR "OLDER ADULTS" OR "OLDER PEOPLE" OR "ELDER CARE"

Search #14

Database Searched:

AGELINE

Time Period Covered: 1990 - 1999

Search Strategy:

"HEARING" OR "DEAF-"

AND

"COMMUNICAT-" OR "MARKET-" OR "ADVERTIS-" OR "MEDIA" OR "MERCHANDIS-"

APPENDIX 2: Publications Listed in Ulrich's International Periodicals Directory Indexed Under Subject Heading "Gerontology and Geriatrics" and Document Type "Consumer Publications"

Magazine Name	Circulation	Appears Regional	Target Audience	Publisher	Sponser (if listed)
Central Pennsylvania Senior	25,000 (controlled)	Pennsylvania	50+	Journal Publications	
Mature Lifestyles	60,000				
Senior Selections, Mature Living Choices				Network Communications, Inc.	
Vermont Maturity Magazine	15,000		50+		
Life Extension				Life Extension Media	Life Extension Foundation
Sandwich Generation: you and your aging parents			Caregivers and professionals	Carol Abaya Associates	
Answers	50,000		Caregivers	Publication Consultants, Inc.	
OWL Observer	20,000		Seniors	Older Women's League	
Arizona Senior World	200,000	Arizona	Seniors	email = azw@seniormedia.com	
Rx Remedy	2,200,000 (controlled)		50+	Rs Remedy, Inc.	
Ohio's Heritage		Ohio		Ohio Department of Aging	
Get Up and Go	750,000	Editions for 10 different states	50+	AgeWave Communications, Inc.	
Where to Retire	150,000		Seniors	Vacation Publications, Inc.	
Southern California Senior Life	240,000	Southern California	Seniors	Senior Media, Inc.	
Senior Magazine	100,000 40,000 (controlled)		50+	Senior Magazine	
Fifty Something Magazine	25,000		50+	Media Trends Publications	
Travel 50 & Beyond	185,000		50+	Vacation Publications, Inc.	
The Older American	10,000		Caregivers	Saltus Press	Massachusetts Association of Older Americans
Secure Retirement	1,615,554		Seniors	National Committee to Preserve Social Security and Medicare	
On the Scene	35,000	Albuquerque, NM	All ages	Unicorn Publications, Inc.	
Retirement Places Rated			Seniors	Macmillan General Reference	
Advances	650,000			Alzheimer's Association, Inc.	
Mature Outlook: For vibrant people who enjoy life	760,000		Seniors	Meredith Integrated Marketing	
Seniority	275,000		Seniors	National Council of Senior Citizens	
Innovations in Aging	8,000			National Council on the Aging, Inc.	
Modern Maturity	20,500,000		50+	American Association of Retired Persons	
Mature Years	80,000		Seniors	Board of Discipleship; United Methodist Publishing House	United Methodist Church
New Choices	600,000 (paid)		50+	Reader's Digest Association, Inc.	
The Citizen (La Cañada)	90,000	Southern California	Seniors	Osmon Publications, Inc.	

APPENDIX 3: Scan of Web Sites of Large US Companies

Company	**Finding**
Coca-Cola	No specific information relevant to our study population.
Eli Lilly	Maker of Evista (osteoporosis drug).
Kaiser Family Foundation	Features on marketing to seniors and the disabled.
Kaiser Permanente	The national web site has information on senior health issues.
Kellogg's	Corporate statement states that their is no discrimination in their advertising including age biases.
Nabisco	They are conducting a search for the fittest person over 50 in relation to their product Nutrajoint.
New Balance (shoes)	No specific information relevant to our study population.
Pepsi-Co	No specific information relevant to our study population. In the past they have used older people in a retirement community setting in their television ads.
Pfizer	Some information that focuses on marketing, philanthropy, community involvement, and caregiving. They are the makers of Viagra.
Prudential	Their health plan enrollees were the source of data for the February 1999 *JAMA* article on health literacy.
Quaker Oats Company	Company sites its "corporate social responsibility" to the public. "Be Well" pages feature information on health and nutrition.
Sears	No specific information relevant to our study population.
State Farm	Educational materials aimed at seniors. They have Medicare supplemental policies and long term care insurance.
Vanity Fair (magazine)	No specific information relevant to our study population.
Wendy's International	Won the 1984 Clio award for their "Where's the Beef?" campaign that featured an elderly woman. Reliance on the term "old fashioned" in their advertising and marketing of their restaurants.

APPENDIX 4: Companies on the Web Marketing Products to Seniors

Company	Product(s)
AgeNet	information, products, also aimed at caregivers, sorted by item type or for specific conditions
Alert-1	medical alarms for those living alone
All Ears	hearing aids and products
Ann Morris Enterprises, Inc.	products for the visually impaired or blind
Assistive Devices, Inc.	assistive living devices for seniors and the disabled, online catalogue
CC-M Productions	Armchair fitness video
Friendly4Seniors	index and links to senior sites
KMS	medical equipment and supplies
LifeSource Nutrition Solutions	food designed for seniors
Mature Mart	various products for seniors, online catalogue
Merry Walker Corp.	walkers and other assistive devices
Nordberg Products LLC	auto assist transfer seats
Personal Touch Health Care Apparel, Inc.	apparel for nursing home residents
PHC	incontinence care products for adults
Phillips Monitoring Service	service that monitors the elderly or home bound through phone calls
Roseberry	elderly sleepwear
Rubbermaid	personal aids, mobility, and health care products
Senior Friendly	seniors guide to technology, gives "Senior Friendly" approval to products
Senior Supply	products for seniors
Seniorstore	senior products and gifts, contains links to other senior sites
SOS Industries	emergency help medical alert systems
Theratip	physical therapy videos for various conditions
Unlimited Solutions	products for seniors and the disabled
Wardrobe Wagon	adaptive clothing
WisEnt	health care products for seniors
Working Wonders Ltd.	adaptive products for the physically challenged

APPENDIX 5: Additional Magazines/Periodicals Identified by the Internet Search

Magazine/Periodical Title
Age of Reason
Arizona Senior World
Best Years Beacon
Caregiving Newsletter
Conquest
Fifty Plus
For My Grandchild
Friends Magazine
Generation Over 50
Good Life Magazine
Grand Times
Healthline Magazine
Healthy Caregiver
Lifeline: The Senior Health Magazine
Mature Life
Mature Women's Magazine
Maturity USA
Nevada Senior World
Off Our Rockers
Option at 50 Plus
Reader's Digest
Retired Living - Straight Talk
Retirement Opportunity
Seasoned Citizen
Senior Connection
Senior Golfer Magazine
Senior Lifestyle
Senior Lifestyle Magazine
Senior Living Newspapers
Senior Netizens
Senior News Magazine
Senior One Source
Senior Profile Magazine
Senior Times (in print and on-line)
Senior Travel Tips
SeniorCom
SeniorLaw
Seniorline
Silver Threads
The Senior Center
Third Age Report
Today's Caregiver Magazine
Today's Senior
Vintage Magazine

APPENDIX 6: Magazine Advertisement Review

Company	Product/Service	Web Page
	Accu-check blood glucose monitoring device.	http://www.accu-check.com Could not get the web site to come up.
Advanced Optics	Fold-up magnifying reading glasses, free case with purchase. The ad was very cluttered.	
Alberto V05	Silver Hairdressing gets rid of dull yellows in gray hair. Shows before and after photo.	
Allergan	Refresh for dry eyes.	http://www.allergan.com
American Foundation for the Blind	Ad describes the foundation.	
Ann Trenton's Value Shopper	Bras up to size 42D.	
B & B Company	Postmastectomy breast forms (prosthesis) that are "Medicare approved. An 800 number is given.	
B.F. Ascher & Co.	Pain-X pain relieving gel.	
Baush & Lomb	Miracle-Ear hearing aid. Ad promotes free video, "Hearing Loss & You."	http://www.miracle-ear.com "50 years of hearing innovations." Detailed pages on products and services.
Beautiful Music Company	CDs and cassette recordings.	
Del Pharmaceuticals	ArthriCare Ultra. Ad shows grandmother and granddaughter at the piano.	
Del Pharmaceuticals	Orajel Gold toothpaste for adults with sensitive teeth.	http://www.orajel.com Descriptions of their family of oral care products including Orajel Denture and Orajel Gold.
Del Webb's Sun City	Roseville, CA, age 55+ restricted retirement community. Free videos available.	http://www.delwebb.com Building of active adult communities. Communities usually built around golf courses.
Doubleday Large Print Home Library	Large print books. Book club membership discount. Free tote bag giveaway and mail in card.	http://www.DoubledayLargePrint.com Books printed in 16-point type.
Eisai America, Inc. and Pfizer, Inc.	Aricept, Alzheimer's Disease medication. Listed an 800 number for information on AD and the medication. Also had mail-in card.	
Ford	Windstar minivan. Shows couple saying "we needed more room after the kids moved out."	
General Nutrition Center	OsteoSure supplement for bones. "You're 5' 5" now. Will you be 5' 5' when you're 80?"	http://www.gnc.com
Good Music Record Co.	Songs from the war years. Ad pictures two young people with the man going off to war.	

APPENDIX 6 (continued): Magazine Advertisement Review

Company	Product/Service	Web Page
Green Tree Press	Computer course. Cartoon with young adults at a computer asking, "How come it's so easy for Gramie?" who is sitting at another computer.	
Hampton Inns	Lifestyle 50 Plus savings program for hotel rates. Ad shows older man with a surfboard.	
History Channel Tours	Travel agency booking historical trips.	http://www.HistoryTravel.com
Hoechst	Cadizem CD for high blood pressure and angina.	
Hometown Retirement Mississippi	Retirement living in Mississippi	http://www.mississippi.org
Inter-Cal Corporation	Vitamin supplement Ester-C.	http://www.esterc.com
Kimberly-Clark	Depends undergarments.	http://www.depend.com
Kimberly-Clark	Poise pads for loss of bladder control. Ad shows woman in the 50-55 age range.	http://www.poise.com Site points to product descriptions, an incontinence education center, and a section for medical professionals. Consumer survey included.
Knox	Nutra Joint. "Partners in Motion" program. Product helps joint flexibility.	http://www.knoxgel.com
Leach Publishing Group LTD	Discovering Archaeology magazine large print edition.	
McNeil	Tylenol for arthritis. Has Arthritis Foundation endorsement and a contact number for more information and research findings.	
Meade Johnson Nutritionists	CHOICEdm nutrition bars and beverages for people with diabetes. Ad shows large woman ~50 years old with 7 hula hoops going.	http://www.choicedm.com Site offers information on diabetes, product information, recipes, and tips. Home delivery offered.
Merck	Zocor cholesterol medication.	
Mondial Industries, Ltd.	Confidante discreet adult diaper disposal system. Looks similar to the Diaper Genie for baby diapers.	
Neuromin	DHA "feed your head" supplement.	http://www.marketbio.com
Ocutech, Inc.	Ocutech VES autofocus telescope for macular degeneration and other vision impairments.	http://www.ocutech.com Site has both a regular version and a large print version. The later has a black background with white, very large letters. Pages on products, indications of vision problems, and a page for low vision professionals.
Pacific Retirement Services, Inc.	Retirement communities in the western United States.	http://www.retirement.org

APPENDIX 6 (continued): Magazine Advertisement Review

Company	Product/Service	Web Page
Pharmacia and Upjohn Company	Detrol for overactive bladder. Shows middle-aged, smiling couple walking on the beach. Suggests asking your doctor about overactive bladder.	http://www.detrol.com Overactive bladder "isn't normal at any age." Several pages on product description and diagnostic questionnaire to fill out and bring to your doctor. Repeatedly suggests talking to your doctor.
Phonak Audio Zoom	Hearing aids with "multi-microphone hearing technology."	http://www.phonak.com Web pages do not show older adults.
Real Health Laboratories, Inc.	Prostate Formula. Humorous ad showing older man and a phone number for more information and location of stores that sell the product.	
Rhône-Poulenc Rorer Pharmaceuticals, Inc.	CombiPatch for menopause. Hormone replacement therapy.	
Robson Communities	Retirement communities in Arizona. Ad points to video for more information.	
Sage Products, Inc.	Comfort Bath Cleansing System for "all those who can't bathe or shower, take comfort." Full-page ad shows 4 photos: young African American male on crutches, older white woman with walker, 4 kids (one with a cast), and a young white man in a wheelchair with no legs.	http://www.comfortbath.com Web pages provide product description, FAQs, where to buy the product, and company history.
Schering-Plough Healthcare Products, Inc.	Products to protect against bladder leakage. Targeted at women. Free samples available.	
Scudder	AARP mutual funds. Ad shows older woman who has raised a family and had a career.	http://www.aarp.scudder.com
Shell Point	"Retirement resort" in Ft. Myers, Florida. Lifestyle that includes culture, education, recreation, etc. Free video.	
Sinclair Intimacy Institute	Video library that includes "The Couple's Guide to Great Sex Over 40." Ad shows middle aged man kissing much younger woman. Videos are based on "sound medical research and suggestions from family doctors, gynecologists, psychologists, and sex therapists." Explicit intimacy demonstrations.	http://www.bettersex.com Description of video for couples over 40 includes "how to accommodate back problems and other obstacles faced by couples over 40."
Telebrands	Lionel train watch. "As seen on TV. The order form was ripped out of the magazine.	http://www.telebrands.com

APPENDIX 6 (continued): Magazine Advertisement Review

Company	Product/Service	Web Page
Telesensory	Aladdin Companion. Portable video magnifying glasses.	http://www.telesensory.com Site offered in text version for people with low vision. Text version has black background and white text in a very large font. The Aladdin Companion is $1,297.
Trans World Airlines	Senior airline discounts for those people 62+.	
Tresco, Inc.	*Free for Seniors* book.	http://www.trescoinc.com Book of "little-known Government giveaways for people over 55." Book costs $12.95. Web pages provide testimonials of satisfied readers of the book.
VideoEye! Corporation	"Low vision aide designed to help those with central vision blindness due to macular degeneration, diabetic retinopathy, glaucoma, and some forms of retinal damage due to disease or trauma."	http://www.videoeyecorp.com The web pages themselves allow for a large print version. There are pictures that show the product being used by elderly people doing activities.
Vivus	Muse, a severe impotence suppository.	http://www.vivus.com Detailed information about the product, use, and side effects. Research findings also listed. "Sex and aging" pages.
Warner-Lambert Company	Quanterra herbal supplements. Actor Hector Elizondo is the spokesperson. Shows him doing various activities. Formulas for mental sharpness, prostate, and emotional balance.	http://www.TakeYourQ.com Describes "What you need to know before choosing to take any herbal extract?" Product descriptions and links to their full color advertisements featuring Hector Elizondo.
Wearhydrex	Wearever washable, reusable briefs for men's and women's bladder protection. 30-day money back guarantee.	http://www.wearhydrex.com Site is password protected.
Widex	Digital hearing aids. Large print ad showing "world's first" completely in the canal hearing aid. 800 number given.	
Willows GS, Inc.	MaxiSound personal amplifier, very small print ad, much information.	

APPENDIX 7
Organizations Contacted in Second Level Scan

Respondents

1. Age Venture News Service, Internet news service
2. AgeWave Impact, Marketing firm
3. Alert One, Monitoring service
4. Assistive Devices, Home supplies
5. Fabian Financial Services, Financial advisement
6. Forest Lawn, Mortuary and cemetery services
7. Leo Burnett, Marketing firm
8. Life Source Nutrition, Nutritional home meals
9. Lintas, Marketing firm
10. Mature Marketing, Marketing firm
11. Microsoft, Senior Initiative
12. Organization for the Needs of the Elderly (ONE), Senior center
13. Santa Cruz Senior Citizens Legal Services, Legal services
14. Senior Net, Marketing firm
15. State Farm, Automotive and long term care insurance

Non-Respondents and Refusals

1. All Ears, Hearing aids
2. CCM Productions, Armchair fitness videos
3. Helen Harris Associates, Research firm
4. Liberty Medical Supplies, Medical supplies
5. Kimberly Clark, Makers of Depends
6. Pfizer, Drug company
7. Research 100, Research firm
8. Ross Products, Makers of Ensure
9. Secure Horizons, HMO
10. Whitehall- Robins, American Home Products
11. Echienbaum Health Center

APPENDIX 8
Communications Framework

SOURCES RE COMMUNICATION AND OLDEST OLD AND FRAIL ELDERLY	COMMUNICATION TECHNIQUES			
	Needs Assessment/ Targeting	Document Design	Pathways	Sales/Follow-Up/ Integration/ Prompting
General topic				
Literature search				
RAND network				
About products/commercial ventures				
Specific products (e.g., Ensure, Centrum Silver)				
Literature				
Product companies				
Marketing and ad firms				
Sweepstakes (magazines)				
Telemarketing				
Direct mail firms				
About services/issues				
Legal services/elder law				
Literature				
Self-help clinics				
Senior services				
Literature				
Senior centers (particularly in lower SES areas and particularly legal assistance)				
AARP itself				
Health services				
Literature				
Alzheimer's centers				
Hospice centers				
Hospital outreach programs				
Public health education				
Churches/religious organizations				
Literature				
Roman Catholic services				
National Council of Jewish Women				
Mammography through churches project				
Consumer fraud protection				
Literature				
Organizations				

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RAND

Communicating Rights and Protections to the Frail and Oldest Elderly: Recommendations

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INTRODUCTION

This report provides recommendations for communicating about Medicare rights and protections with elderly beneficiaries who are frail and/or 85 years of age or older. It is the fifth and last in a series of reports intended to inform the Health Care Financing Administration's (HCFA's) efforts to promote greater awareness and exercise of Medicare rights and responsibilities among beneficiaries made vulnerable by frailty or advanced age. Prior reports provided a demographic profile of the frail and oldest elderly in the United States today;[1] a description of the support systems they utilize;[2] an annotated bibliography on their health care issues and characteristics;[3] and a primer on how to communicate with the frail and oldest elderly[4] based on findings from an environmental scan of techniques used in business, marketing, and health fields for communicating with older adults.[5] The recommendations here are based on the evidence in these previous reports.

Our discussion focuses on how to communicate *Medicare rights and protections* information so as to reach frail elderly and their caregivers, ensure that the information is absorbed and understood, and strengthen their ability to exercise these rights and protections. All of the principles of communications outlined in the primer apply to these groups. However, the characteristics of this population and complexity of *Medicare rights and protections* information combine to present unique challenges:

- The diversity of demographic, functional, and health characteristics of frail and oldest adults creates widely divergent communication needs.
- Their caregivers are also diverse and similarly have widely divergent communication needs.
- Many Medicare beneficiaries and caregivers lack a basic understanding of the Medicare program or the health care system and therefore lack a context for incorporating rights and protections information.
- Medicare rights and protections and the processes for exercising these rights and protections are very complex.

In the sections that follow, we discuss these challenges to effective communication and recommend steps for addressing them.

DIVERSITY IN THE FRAIL AND OLDEST ELDERLY SUGGESTS WIDELY DIVERGENT COMMUNICATION NEEDS

Many of the demographic characteristics profiled in *A Demographic Profile of the Frail Elderly and Over 85 Population of the U.S.* suggest challenges for communicating with these groups.[1] For example, as Figure 1 shows, almost 70% of this population are women. Women of this generation are less likely to have worked than their male cohorts and are therefore less likely to have been exposed to pre-retirement information about employment-based health insurance or to have received information on Medicare through work colleagues or employers. About one-quarter of these older adults live alone, suggesting in part the increased social isolation that frequently accompanies aging and reduces communication opportunities.

One fifth of the frail and oldest old are Hispanic and/or non-white. While the frail elderly are currently less diverse than the rest of the U.S. population, the diversity is still substantial and represents multiple cultural and language challenges to communication.

Figures 2A-E show some of the key components of diversity in all beneficiaries 65+ and in particular ethnic groups. More than two-thirds of Asian and Pacific Islander (API) elders aged 65 years and over and more than half of Hispanic elders are foreign-born. These elders may have strong cultural differences in expectations and ability to negotiate with a large, complex bureaucracy, as well as differences in information-seeking patterns.

Although the vast majority of adults 65 and over speak English "very well," language may also be a critical barrier for some groups of elders. Figures 2D and 2E show that more than one-third of elders who speak an API language or Spanish at home are linguistically isolated – that is, they live in households in which no other member aged 14 or over speaks only English or speaks English "very well."

The racial and ethnic diversity of frail and older elders is expected to increase. The numbers of Hispanic and Asian and Pacific Islanders are projected to grow the most dramatically in the coming decades. This growth will be associated with increased diversity in English-language speaking ability and perhaps with an increase in the proportion foreign-born individuals.

A substantial portion of the elderly are ill prepared to understand and act on information about their health care. Approximately one-tenth of elderly adults in the U.S. today have incomes below the poverty level, one third do not have a high school education, and 4% did not complete more than four years of elementary education (i.e., high functional illiteracy). Individuals with low incomes are less likely to have access to the full range of mediums through which Medicare information can be distributed. For example, poor households are less likely to have a computer or Internet access. Education also affects the ability of individuals to communicate and to negotiate with large bureaucracies.

The environmental scan results suggest that a much higher proportion of the elderly have low literacy when it comes to healthcare information.[5] In a recent study of elderly Medicare managed care enrollees, nearly one-quarter of all English-speaking respondents were found to be unable to read simple materials such as prescription bottles, appointment slips, and procedure preparation instructions written at a 4.3 grade level (inadequate health literacy). Another 10% did better on the simpler tasks but had difficulty reading and understanding a Medicaid rights and responsibilities passage written at a 10.4 grade level (marginal health literacy). The proportion of beneficiaries without adequate health literacy increases with age. Among individuals 85 and older, 58% were inadequately literate and 13% were marginally literate.[6]

Although the elderly are likely to have more difficulty understanding healthcare information, they are far more likely to experience health problems, which, in turn, may increase their need for information while decreasing their ability to get it. Figure 3 shows that nearly 40% of the elderly 65 to 84 years of age (and more than 80% of those 85 years and older) have some functional limitation that may limit their ability to use a telephone or to attend social or educational events or come in contact with people who could be sources of information. The arthritis suffered by about 60% of older adults may affect their ability to open and handle materials, to write or fill out forms, or to operate communication equipment such as telephones, VCRs, or computers.

Almost 70% of the 65 to 84 year olds (and nearly 90% of the oldest old) suffer the stress of managing at least two chronic illnesses. Thirty-six percent of noninstitutionalized individuals aged 75 years and older report that they suffer from heart disease, 8% report cerebrovascular disease, 11% blindness and other visual impairment, 41% deafness and other hearing impairments, 24% deformities or orthopedic impairments, 23% cataracts, 55% arthritis, and 9% diabetes. More than 20% of the respondents (across all ages) with heart disease, cerebrovascular disease, deformities or orthopedic impairments, arthritis, or diabetes report that their major or outside activities are limited by the disease.[7] Apart from specific diseases and impairments, physical, and psychosocial changes associated with aging itself affect people's abilities to take in and process information.

Any one of these demographic or health characteristics could make communication difficult. In the aggregate, they constitute a substantial array of widely differing, sometimes conflicting, challenges.

CAREGIVERS ALSO ARE DIVERSE, DISPERSED, AND BURDENED

As described in the *Report on Support Systems Available to and Utilized by the Frail and Oldest Elderly*,[2] most care provided to the oldest old and frail elderly in the United States is given by informal caregivers – usually spouses or family members (frequently adult children), but also friends and neighbors or volunteers from local charitable or religious organizations. Most of these caregivers were not formally trained in caregiving and are geographically, socio-economically, culturally, and linguistically dispersed throughout society. As caregivers, they are not organized into entities with centralized mechanisms of communication.

Caregiving is a part of life for a substantial minority of Americans. Using data from the National Survey of Families and Households (NSFH), the Office of the Assistant Secretary for Planning and Evaluation (1998) estimates that 52 million Americans (31% of all adults aged 20-74) provided informal care to a family member or friend who is ill or disabled.[8] In other words, such caregiving is a part of life for a substantial minority of Americans. Although caregiving occurs at all ages, most caregivers are in their late middle-age years and are providing care to their parents.[8] Women provide proportionately more care than men.[8]

That so many frail and older elderly appear to rely on family and friends suggests that these informal caregivers, particularly spouses and adult children, are critical links in communicating with the elderly and enabling them to exercise their Medicare rights and protections. The findings on the kinds of support they lend certainly suggests that many are interacting with the frail elderly in Medicare-related areas of health and physical functioning and thus are likely to be aware of problems in health care services and coverage as well as the barriers to resolving these problems. They are likely to be present when the frail elder is least able physically, emotionally, or cognitively to tackle a complex process. Their relationship with the frail elder generally preceded the functional deterioration or advanced age. Thus they may more readily recognize issues or problems that arise in the delivery of health services than a formal caregiver would. They also are likely to facilitate many of the elder's links with formal systems of support.

Existing research suggests that many of these caregivers already are experiencing substantial burdens related to the caregiving. For example, caregivers are providing 39 of 46 hours of the care received on average per week by disabled elderly.[9] The time they commit each week to supporting elders has serious consequences in other family, personal, and employment-related areas of their lives. Many others are expending substantial financial resources for additional in-home care or long-term care. They may have fewer time, financial, and emotional resources to spend in getting information on rights and protections.

MANY ELDERLY KNOW LITTLE ABOUT MEDICARE AND THE HEALTHCARE SYSTEM

Many of the elderly lack a context in which to place new information about Medicare or the health care system. A survey of community-dwelling Medicare beneficiaries aged 65-80, sponsored by the American Association of Retired Persons (AARP), found that 30% of the respondents knew almost nothing about HMOs and did not understand the difference between HMOs and traditional, fee-for-service Medicare. One half of these were enrolled in Medicare HMOs. The responses of nearly 90% of all respondents indicated that they did not have adequate understanding of health care delivery systems, options, and choice implications between traditional Medicare and an HMO.[10]

Among the 70% of respondents who had at least a minimal knowledge of HMOs, many still did not know they had appeal rights (37% of those in HMOs and 19% of those with regular Medicare).[10] As shown in Table 1, data from the Medicare Current Beneficiary Survey (MCBS) suggest that the frail and oldest elderly are more likely to lack knowledge of appeal rights.[11] When asked if it is true that you can appeal a Medicare decision, 28% of the frail and oldest and 21% of the non-frail beneficiaries answered "false" or didn't know. Knowledge about how to appeal is even lower. When asked "Would you know how to appeal if you wanted to," 65% of the frail and oldest beneficiaries and 58% of the non-frail said they lacked adequate knowledge to appeal. Significantly more non-frail beneficiaries know they can appeal ($p < .05$) and how to appeal ($p < .05$) than frail and older beneficiaries, but substantial proportions of both groups lack this basic knowledge.

Knowledge about appeals and the appeals process also varies across ethnic groups. As shown in Table 2, fewer African-American, Hispanic, API, and American Indian beneficiaries have knowledge of both the right to appeal and how to appeal than do white beneficiaries.

This lack of understanding of the right to appeal and how to appeal was echoed in four recent focus groups, two of frail and oldest elderly and two of their caregivers.[a] The elderly focus group participants had varying and generalized notions of rights and protections. They said, for example, that they had the right to receive health care whenever they had a problem and wherever they went, to be treated well, to change providers if they were not satisfied, or to enroll/disenroll from their HMO. One said, "We don't know what you're talking about. What's rights and protections?" The majority were unaware of any listings of rights, and the two or three elders who remembered seeing a list or book mentioned that they had not read it.

The caregiver groups, on the other hand, raised issues of services covered, reimbursement, and the right to see one's medical record. Except for one caregiver who thought she had seen something on patient rights in a mailing from some organization such as AARP, none of the caregivers was aware of printed information listing Medicare rights and protections.

One woman entered the discussion with a description of a care episode of her mother's and concluded by saying, "I would love to know exactly what my rights were. I learned just by defending my mom, just by yelling at doctors...; so yes, you empower people with rights, and in this country you have to tell people and tell them again and tell them again, maybe public service announcements...."

Another caregiver expressed his lack of understanding in the following terms:

> I didn't know the Medicare system until my father started getting sick and my aunt started getting sick and I'm thrown in that situation. I was with a PPO, so I had no idea what Medicare was about. So all of a sudden I'm in this situation where I have to take over certain responsibilities. How do I get educated? I've got to go back to my aunt's house, to my father's house, look up the book, take the time to read it, dealing with all the other issues and all the pain. And then you want to appeal it, and what is the appeal? Is it an immediate appeal? If you're going to be asked to leave the hospital, how do you know what's immediate? What can you do to immediately stop a situation?

The focus groups were asked to discuss hypothetical situations and personal experiences in which services they thought they needed were denied. In response, the elders primarily focused on turning to physicians, nurses, or hospital social workers. Some mentioned fears of having services cut off or repercussions from physicians or HMOs. Out-of-pocket costs were a major concern of many of the elder participants. A number expressed a feeling of powerlessness since the doctor has the final say – or, since the government dictates what doctors can and cannot do. One elderly participant stated:

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[a] The two elder focus groups included 15 elderly Medicare beneficiaries who were age 85 and older or reported functional limitation in activities of daily living or instrumental activities of daily living. All spoke and read English well enough to participate in group discussion. Fifty percent of these elders were age 80 or older, 53% were women, 27% had less than a high school education, 40% were married, 33% lived alone, 67% were white, 20% African-American, 7% Hispanic, and 7% of mixed race. Reflecting the high Medicare managed care enrollment in Los Angeles, 80% were members of Medicare managed care plans.

The two caregiver focus groups included 13 family members and friends who provided care to the elder focus group participants. Forty-six percent of the caregivers were younger than 45, 46% were 45-64, and 8% were 55-64. Only 8% of the caregivers had less than a high school education, while 54% were married. Fifty-four percent were women, 62% were white, 31% African-American, and 8% Hispanic. Seventy-seven percent reported that the elder they cared for was enrolled in a Medicare managed care plan.

Participants in these focus groups were recruited using two strategies: 1) a random digit dialing using prefixes in cities located near RAND, concentrating on such cities as Santa Monica, Mar Vista, Venice, West Los Angeles, Culver City and then expanding to cities within a 12 mile radius; and 2) using a database list of previous focus group participants.

All four focus groups were held at RAND in October 1999.

> the truth of the matter is, you cannot stay in the hospital longer than a certain period under Medicare. I had a hip operation two years ago October, and the doctor told me he can only keep me in the hospital six days, and there was nothing I could do but go home after six days. It was painful, and I had to go back at one in the morning, an emergency, two days in a row. They're under pressure, the hospitals, under Medicare, cause the lady [in the hypothetical situation being discussed] could say I don't feel good, I want to stay here another week, but they have guidelines, and they have no control. When they say you can only stay six days, that's it. You can't complain to a nurse, you can't complain to your family doctor there, and that's the story of HMOs.

Feelings of empowerment were either based on good relationships with physicians, nurses, and social workers or expressed in terms of contacting political representatives, e.g., "your representative," "the President," or protesting. One elderly participant counseled:

> Well, the system keeps changing all the time, so what's good one time isn't good the next, so you really have to keep on it, but there is always the resource of going to the administrative office and finding out where you stand and why not, and if enough people protest enough, I'm sure there could be some changes made. So it's not sitting back and accepting what they give you, but raising a little hell about it.

Three or four elders reported having made a direct call to Medicare and a couple suggested contacting a "panel of doctors" or a "state agency." Otherwise there was very little mention of administrative remedies, particularly with respect to health plans, government agencies such as professional review organizations, or Medicare (HCFA) itself. The concept of an appeals process seemed limited to seeking an advocate on one's behalf. Although the health care setting of the situations discussed by the focus group's moderator varied among hospitals, physician offices, and plans, the elders' comments seemed to imply that they kept a hospital framework in their minds.

In discussing where they might seek information to help them figure out what to do, caregivers also frequently mentioned doctors, nurses, and social workers. Their suggestions extended to "ombudsman," "customer service," "the Internet," "senior centers or programs or religious groups," "local congressmen," "the back of their care recipient's Medicare card," "council person," the "HMO," "member services," and "hospital administration." However, they were quick to point out that many elderly may not do this because of the frustration of being put on hold when they try to reach any of these agencies or individuals, getting the run-around, or their lack of knowledge of who to call. Even within this group there was little mention of any administrative remedies. Towards the end of one focus group, a caregiver summed up the discussions in this way:

> I think what you're hearing from this group is that none of us....If there was an 800 number to go straight to Medicare, we don't know about it. So we are assuming that Medicare is like some tiered level, that we deal first with the doctor or the hospital and that Medicare is behind it…

MEDICARE RIGHTS AND PROTECTIONS ARE COMPLEX

Rights and protections information may be particularly difficult for some people to seek or understand because grievance and appeal information is primarily legal in nature and both the information and the processes for exercising legal rights are complicated and involved. Elderly people may avoid legal information in the same way they tend to avoid attorneys, a phenomenon referred to in the elder literature as "attorney avoidance."[12] Adams and Morgan emphasize the need for elderly persons to "recognize legal problems, then to seek legal assistance, and finally to understand the assistance rendered."[12] They suggest that many older people (and younger adults as well), fail to have their legal needs met in large part because they fail to identify a problem or issue as a legal problem. Additionally, many adults, young and older are uncomfortable with processes they perceive as confrontational or adversarial.

While not all Medicare grievance and appeals processes require the assistance of an attorney, the failure by Medicare beneficiaries to seek legal redress for their problems may be related to concerns about the potential costs of legal assistance, may stem from "antipathy toward lawyers and the legal system," or may arise from more general problems with access (caused by being homebound or in an institution). "Reticence" to engage a lawyer or to participate in a "legal" process may be part of an older person's more general withdrawal from social contacts, may be based on a "long-term pattern of unwillingness to talk about private issues with a stranger," or, in the case of older women who "were married during an era when husbands usually handled financial matters" – may result from women's being uneducated about "business" matters and how and when to seek assistance. Adams and Morgan also note that many older persons are "suspicious about or intimidated by consulting an attorney."[12]

To counteract attorney avoidance, Smith suggests that attorneys and advocates employ "gradual counseling" of the elderly client.[13] This approach stresses the importance of the attorney or advocate's role in helping to clarify, provide feedback, and reflect back to the client the lawyer's perceptions of what the client is saying and feeling. The attorney becomes the primary vehicle for legal information; with brochures and other written material provided so the elderly client can review information at their own pace after the discussion.

One of the reasons that gradual counseling and follow-up written information may be an extremely important approach is that the Medicare appeals process is extraordinarily complex and can be a very long and difficult process for elderly individuals. The complexity begins with the division of Medicare into three parts (Parts A, B and C), each having its own appeals process at the first level employing a variety of Medicare contractors (e.g., for Parts A and B, beneficiaries must first seek reconsideration on the written record from the Medicare contractor who denied their claim; for Part C, beneficiaries use the internal processes of their managed care organization). In addition to these appeals processes, there are separate procedures for quality of care complaints, special appeals rules for hospital discharge, and special notices for discharge from a skilled nursing facility.[14]

The Medicare statute requires exhaustion of administrative remedies before access to the federal courts is allowed. In order to exhaust administrative remedies, the elderly beneficiary must engage in a series of steps that involve a series of actors and may involve significant periods of time. Each step in the process must be completed before the beneficiary can continue. Given how long some of these appeals can take, "exhaustion" may be an accurate descriptor of the result for elderly beneficiaries, especially those in poor health. Low incomes, lack of family support to help with the processes and paperwork, lack of mobility or transportation, avoidance of lawyers, and confusion over rights and procedures may all be barriers to the frail elderly.

Exercising the right to appeal can take a year to get through the first level of review and several more years to get to federal court. Administrative Law Judges (ALJ) and the Department Appeals Board have specific processes and time frames within which appeals are supposed to be heard. These time targets, however, are guides, not limits, and beneficiaries are not allowed to proceed automatically to the next level if decisions are not made in a timely way. Beneficiaries can wait as long as two years to get an ALJ hearing and Gottlich suggests they may wait "as long" to get a decision.[14] The Medicare Rights Center (MRC) reports data from the HCFA/DPO/Division of Reports and Information Management (for 1995) that, "in April 1996, 224 ALJ hearing requests were filed nationwide, while 10,528 requests were pending."[15]

Surviving such a protracted process would be exhausting for anyone, but especially for the elderly. Many beneficiaries, both frail and non frail, will lack the financial and other resources required to proceed through all three levels of appeal, even if they fully understand the processes and steps. According to Gottlich's testimony, "anecdotally the number of appeals decreases as beneficiaries progress through the appeals system and [ ] few federal cases are brought."[14] Without access to some means of support, it seems unlikely that a frail elderly person (or their family unless they had adequate financial and emotional resources) could reasonably undertake any more than the first level of appeal.

Clarifying the steps to take action can be a challenge. Information about the detailed steps of filing an appeal is frequently difficult to pull together. Gottlich cites a recent General Accounting Office (GAO) report[16] as support for her assertions about problems in the current appeals processes. She says the report

> found that, despite a court ruling and changes made to the Medicare appeal process by the Balanced Budget Act of 1997, Medicare HMOs still are not providing beneficiaries with adequate notice of their appeal rights. The GAO found that notices frequently failed to explain appeal rights and/or did not state the reason for denial. Notices of discontinuation of a service such as skilled nursing care were made abruptly, leaving beneficiaries without time to plan how to obtain and pay for service. The GAO, after reviewing cases sent to the Center for Health Dispute Resolution for review, also noted that some beneficiaries do not receive notices at all.[14]

HCFA provides appeals information on the back of Medicare Summary Notices. However, review of a recent summary notice of Part B Medical Insurance – Outpatient Facility Claim – revealed that the appeals information is divided among three different pages of the summary notice, and the beneficiary would need to refer to all three locations to access all the information necessary to undertake an appeal. "Your right to appeal" is explained on the back of the first page. "Appeals information" and the steps to take are listed on the front of the last page of the notice. The beneficiary is then referred to the "Customer Service Information" box on the first page for the address of where to send the appeal notice.

The stakes involved in the appeals process are significant for elderly beneficiaries. On the one hand, there are significant risks associated with some of the appeal rights. On the other hand, some data suggests there is significant benefit to pursuing appeals.

One example of the risks, notes the National Senior Citizens Law Center, is the risk associated with paying out-of-pocket for care while awaiting a determination by Medicare *before* obtaining the needed service. The Part A and B appeals processes appear to be premised on the assumption that beneficiaries have already received the service and are appealing the denial of reimbursement.[14] What is not addressed is the risk beneficiaries assume if they follow the *Medicare & You 2000* advice and pay out of pocket, assuming they ultimately will be reimbursed. Some elderly persons may be confused about which services are covered under Medicare, or whether certain providers or facilities are covered, and may take this advice to their financial detriment.

Most frail elderly beneficiaries probably lack sufficient information to assess such risks. Some beneficiaries may not understand that their right to appeal does not extend to a right to the service or the reimbursement. Others may not understand how the right to appeal is a right – or how to exercise this right – if they do not have the resources to pay to obtain the service. Most beneficiaries lack a basic understanding of "coverage" issues (e.g., services that Medicare never pays for are not subject to appeal) and "medical necessity" decisions (a decision that you do not need a service that would be covered by Medicare if you were determined to need it). It also assumes that beneficiaries have the money to pay out of pocket, as well as the time and energy to endure the risk and go through the process when they are ill.

In some cases, the appeals process may be complicated by the need to involve a third party, as when the exercise of the right demands that the beneficiary first pay the provider while the provider submits a "demand bill" to the intermediary. It is difficult to understand a right which you cannot reasonably exercise because you don't have the resources or because you have no leverage to get a third party to do what you need.

Although there are clearly risks, most people are probably not aware of the benefits of exercising their rights either. However, at least for Part A, appealing at the first level is well worth the trouble. HCFA statistics suggest that "the reversal rate is 77% for carrier reviews (Part B) and 43% for intermediary reconsiderations (Part A)." [14] According to the MRC, "while fewer than 1% of Medicare part B claims were appealed. However, 77% of claims that were appealed resulted in increased payments after the first level of appeal. These totaled more than $590 million in added benefits in 1995."[15] With respect to Medicare Part C, "the independent contractor which reviews HMO appeals at the second level overturned HMOs' denials of care or coverage 35% of the time in 1994-95, amounting to over $5 million in additional coverage."[15] MRC concludes,

> based on these statistics and Medicare Rights Center's own experience counseling thousands of individuals on Medicare, we believe that many people are paying for health care or foregoing care that Medicare should be paying for because they lack a strong understanding of the actions available to them when Medicare reduces or denies their benefits. Those who do understand their appeal rights may not be up to the task of proving the medical necessity of a procedure or figuring out whether a coding error has led to a denial. Without sufficient knowledge and the physical and mental ability to persevere, many individuals who should challenge a claim will not do so.[15]

The stakes involved are significant for elderly beneficiaries. When care is inappropriately denied, some patients, who are unaware of the right to expedited review for urgent decisions, may die and others may expend large amounts of their limited income to pay for services for which they will not ultimately be reimbursed. Those who choose to enter the appeals process may expend significant resources for assistance from doctors or lawyers and yet give up after one or two steps because of a lack of financial resources or support, even though they ultimately might have succeeded in their appeal. Although data on the Medicare appeals process is limited, one study suggested that although few appellants had assistance from relatives, health care professionals or lawyers, there was some evidence that those who did were more successful on appeal.[17]

Given the complexity of the Medicare rights and protection information and the process, it is not surprising that one-on-one assistance is being advocated. The MRC supports the need for "information brokers" to help with Medicare choices. According to the MRC,

> information is a two-edged sword. Providing too much unclear information can be as harmful as providing too little information. Some Medicare consumers will not be able to understand the information they receive without help. Independent information brokers, such as the federally-funded State Health Insurance Assistance Programs (SHIPS) are critical players in helping Medicare consumers make sense of their health care choices.[15]

The same reasoning would seem to apply to rights and appeals choices.

Wisconsin has employed an innovative model program that uses trained lay persons to transmit legal information and to enhance the likelihood and ability of elderly persons to exercise their rights – including rights to entitlements such as those under Medicare. The Wisconsin Elder Law Center of the Coalition of Wisconsin Aging Groups documented 78,170 client advocate contacts in fifty-eight counties between 1993 and 1995. Of those contacts, 32% concerned medical entitlements and another 14% related to insurance.[18]

The program employs non-lawyer benefit specialists who are supervised and trained by attorneys and supports a web site to communicate rights information and assist clients in appeals. Assistance includes "outreach efforts to contact older persons in their homes and in other public venues," taking referrals, helping the elderly prepare applications and documents related to medical entitlements, assisting older person in "quasi-legal problem solving," representing elderly persons before administrative agencies, assisting clients in pursuing appeals or denials of benefits, and providing advocacy and public education. The interactive web site has an

> embedded electronic mail facility that will allow users to send their comments and questions to a moderator. The moderator will screen their input and then post selected messages and replies on an electronic bulletin board reachable through a hyperlink text. In this way, confidentiality of potentially sensitive user information is maintained while responses are placed in a public forum for the benefit of all.[18]

Authors note that using a web site bulletin board rather than a list serve will allow them to reach "public terminal users" as well.

Beneficiary interest in one-on-one assistance is supported by the MCBS data. When asked the medium in which they would most like to receive information about Medicare, the largest proportion of Medicare beneficiaries (about 39%) preferred talking with someone in person. Smaller proportions (about 13%) preferred talking with someone on the telephone (800 number). (See Table 3.)

The preference for talking with a "real person" was a dominant theme of all four discussion groups, although with little distinction between in-person and by telephone. The participants expressed interest in communicating about Medicare rights and protections through a toll-free number. However, very few said that they were aware of the Medicare toll-free number (1-800-MEDICARE), and many expressed skepticism that they would be able to get through to a person without long waits or difficult-to-remember menu sequences.

RECOMMENDATIONS FOR COMMUNICATING RIGHTS AND PROTECTIONS INFORMATION TO FRAIL AND OLDEST MEDICARE BENEFICIARIES

The recommendations that follow adapt the communication principles and techniques discussed in the *Primer* and the *Comprehensive Environmental Scan Report* to the special challenges posed by the nature of rights and protections information and the diverse characteristics and needs of elderly Medicare beneficiaries.[4,5]

Recommendation 1. Educate Medicare beneficiaries about the health care system.

Beneficiaries' lack of understanding about Medicare and the health care system presents a serious barrier to effectively communicating information on rights and protections. Without some understanding of the system and the roles of its component parts, they lack a framework for incorporating and using rights and protections information. Beneficiaries need brief and simple explanations of the basics:

- What is Medicare?
- What are the major differences between Medicare managed care and regular Medicare?
- Beneficiaries choose to be in either a Medicare managed care plan or in regular Medicare.
- What is an HMO or managed care organization?
- What is meant by Medicare Part A and Part B?
- What is a primary care provider?
- Where might beneficiaries expect to receive health care, depending on their needs:
    - Physician offices and clinics
    - Hospitals
    - In their home, etc.

- What is meant by Medicare rights and protections in general (e.g., you can expect to receive certain services if you need them, you can find out what these services are, and you can try to get a situation changed if you are not getting what you think you should be getting and need)?

Recommendation 2. Tell Medicare beneficiaries that they need to be their own advocates

As the overall health care system has moved rapidly towards a market model, role expectations for the care recipient have also changed. Patients are now referred to by many as "consumers" of health care and are, in fact, asked to make major choices with respect to their health care. Yet, many people's own definition of their role has not changed as rapidly. The many Medicare beneficiaries who still think of themselves as patients -- or compliant recipients of care and benefits – need to be encouraged to think of themselves as self-advocates (or advocates for those to whom they provide care). They need to be told that it is appropriate for them to act in their own best interest, that it is, in fact, expected of them. They should understand that consumer involvement and self-advocacy not only help them obtain the care they need, but "improve the system by better focusing it on patients' real needs."[19]

Key points that need to be communicated include:

- How and why might Medicare rights matter to you?
- How can you act as a self-advocate with respect to rights and protections?
- What does this role involve?
    - Knowing what is coming to you
    - Getting what is coming to you
    - Getting redress if you did not get what you think you should have
    - Making sure changes are made so you and others will get it the next time it is needed
- It is OK to question, complain, appeal, or grieve. Exercising rights will not jeopardize your care, your relationship with your provider, or your benefits.

Recommendation 3. Avoid a one-size-fits-all approach to communicating with the frail and oldest elderly

This audience includes many different needs, abilities, and expectations. Their diversity extends across all cultures, languages, literacy levels, educational backgrounds, incomes, health statuses, and hearing, sight, mobility, and cognitive abilities. Thus communicating effectively to them will require many different pathways, formats, and messengers.

Recommendation 4. Layer the communication strategy

Consider a social marketing strategy similar to those which focus on stage of behavior change in public health communication.[20,21] Here the focus would be on stage of awareness and activation change.

- Start with the most basic, simple piece of information – how to get further information. ("Need help with Medicare?" "Have a question about Medicare? Call toll free number.")
- Have ready and available additional layers of information better tailored to level and need,
- Help people get to the message they need.

One approach for implementing this layered strategy is to establish a core identity for the effort. Some short message or slogan saying Medicare patients have rights and are expected to be self-advocates (e.g., Advocate for Your Rights and Help Medicare Insure the Best Care, or Speak Up for Your Health) should accompany directions for getting further information. A "surround sound" strategy could then be used to put this identity in front of beneficiaries and caregivers in as many ways as possible (e.g., bill boards, posters distributed throughout the community, flyers in clinicians' offices and hospitals, tear-outs in magazines, pharmacy handouts, public service announcements, etc.)

All responses would then enter a triaging and bounce-back system. Respondents would be triaged by the kind of information (e.g., HMO or regular Medicare, Part A or Part B if regular Medicare, etc.) and problem or right involved. Information strategies could be tailored to levels of awareness and activation. All respondents might be given the first-level information with encouragement and a mechanism for requesting further information. All people who respond once could be set up to routinely receive additional messages. Awareness/activation segments might be defined along the lines of:

- Basic understanding of system (Knowledge)
- Some sense of self-advocate or consumer role (Awareness)
- General understanding of rights and how to act on them (Self-Advocate role 1)
- Detailed understanding of rights and how to act on them (Self-Advocate role 2)

The objective would be to move people to the next level with respect to whichever area of rights and protections they had requested information on.

If it is possible for HCFA to offer special incentives to seniors to seek rights and protections information, the marketing literature would suggest that it is advisable to do so. Money-saving incentives, such as coupons, free samples, and discounts, as well as special assistance services are particularly suggested as effective promotional items for frail elders.[22] A nutritional sample or coupon would additionally offer the positive message that Medicare cares about elders' health. An offer of a small introductory coupon redeemable at local farmers' markets, modeled after the Women, Infants, and Children (WIC) Farmers' Market Nutrition Program coupons administered through the USDA,[23] might be enticing to some seniors, for example.

Helping people get to their tailored message would be critical to the success of this approach. The complexity of the rights and protections process, the diversity of the audience, and the range in levels of awareness/activation all argue in favor of providing a live person at the "entry level" of the system to assess, triage, and move the questioner to the next appropriate level. Most of the focus group participants expressed a strong preference for interacting with a real person. Communication would be additionally improved by assigning the same person to assist a beneficiary or caregiver over time.

The movement from level to level could be monitored by HCFA as part of an ongoing evaluation of the effectiveness of its efforts to communicate rights and protections information to Medicare beneficiaries. Data on the beneficiaries who never request information – and therefore never enter the triaging and bounce-back system – could also be generated, thereby completing a feedback loop. Individuals, groups of beneficiaries, or geographic areas might be targeted for additional or special efforts.

Recommendation 5. Use multiple pathways and formats and messengers for delivering the messages

Variation in pathways, formats, and messengers should be explored to meet the diverse needs of the frail elderly population and their caregivers:

- Language
- Literacy levels
- Pacing preferences
- Cultures
- Gender
- Physical and psychosocial abilities and needs

All variations should be tested and refined with elderly beneficiaries having those needs. With respect to pathways in particular, advantage should be taken of the resources available in the communities. Specific resources such as churches, grocery stores, senior centers, or libraries may be especially appropriate in some communities.

A participant in a caregiver focus groups wove together a number of issues in his suggestion to use broadcast media:

> There's lots of capacity and there's lots of stations, FM and AM, to put these on—or UHF stations to put these on—if the government decided, "Here's a way we can connect directly with the people that are having these problems." And then a show could be set up ... to show the appeal process, to show that you're not alone, that your problems are common to a lot of other people, and it shows you what to do. It can be animated. It can be live action, but it needs to be done with pictures and information. It can't just be text explaining it to you. It has to be a thought-out way, how do you get this information across in a direct and quick way. And what's relevant. There's a lot of information that's not even relevant.

Some pathways (e.g., the Internet) and messengers (e.g., employers) may be appropriate for caregivers rather than for the elderly themselves. A well-designed interactive web site could be extremely effective in providing tailored information to users.

The focus group discussions revealed that most of the participants who recalled receiving the *Medicare & You 2000* handbook indicated that they had not read it. Those who said they had opened the book said they gave up after a few pages. In the MCBS survey, however, 46% of the frail respondents said they found the Medicare Handbook (previous version) useful. Some focus group participants stated that they appreciated having the handbook available for future reference. They intended to use it when and if questions arose. As one component of a multi-pathway approach, a well-organized, effectively formatted handbook provides a valuable reference for beneficiaries. Further guidance on how and when to use the handbook also would be helpful.

Recommendation 6. Provide multiple exposures (repeat, repeat, repeat...)

Key to the success of a layered communication strategy is creating basic awareness—in this case, the simple message that there is a place to go or a person to call for questions about Medicare. Key to creating this kind of awareness is repetition. All human beings, but especially the elderly, need to have a message or advertisement repeated frequently to promote familiarity and enhance retention. This was emphasized by a participant in one caregiver focus group,

> Except I think they [elderly] need to be notified again and again as you get sick, older and older. At times my dad's memory goes, and he may be appraised of certain rights and he doesn't remember. And there's no effort to re-educate him at the hospital or along the way. I think that becomes real important...I think there should be re-education.

Older adults may need to be exposed to a message many times before they decide to act on it. Repetition should occur along all of the multiple pathways and in all of the formats being used.

Recommendation 7: Structure the message to facilitate understanding

Communication to the elderly should reflect all of the basic principles of effective communication. These include:

- straightforward language;
- no jargon;
- an appropriate structure that is easy to scan and is clearly marked with overviews, headings, lists;

- information limited to what's really necessary;
- information that is presented in digestible chunks;
- summaries that reinforce the message.

Tables should be simple and organized to help the reader obtain information from them. Graphics should be designed to reflect what is known about how humans extract information from displays. Ideally, the type of graphic chosen should be one with which the audience is familiar. If it is not, an example graphic should be provided.

Recommendation 8: Format the material for the elderly

Because the elderly often experience declines in vision, hearing, and other physical capabilities, the physical format of any communications product intended for them will strongly affect their ability to understand and use the information it contains.

Hard copy documents should have a standard layout so that the audience quickly learns where to look for information. Type should be large—between 12 to 18 point, and the line length should be modest—never more than 6 inches. Bold, italics and all caps should never be used in continuous text. Text and background should clearly contrast.

Additional format considerations:

- Audio materials should be as free of background noise as possible and feature deep voices.
- Web pages should avoid floating patterns, flashing or blinking, and exceptionally bright colors.
- Web images should have an ALT tag that is simple and informative. (ALT tags are text descriptions that appear on screen in lieu of a graphic. They can be read by assistive devices used by the visually impaired.)

Recommendation 9: Make all messages action-oriented

The purpose of the materials discussed above is to help the elderly become advocates for their own health. Since assuming this role may be difficult for many of the elderly (for physical or psychological reasons), these materials should be very specific about "the next step" to get information, resolve a problem, etc. The elderly will not infer the next step from a series of facts.

A key component in promoting action is to remove as many barriers to it as possible. Special-assistance services, such as help with filling out forms or personal advisors, may be necessary for some elders to act in their own behalf.

Recommendation 10: Evaluate the communications strategies

All aspects of specific communication strategies should be carefully evaluated. Survey methods, for example, can be utilized to evaluate changes in older adults' knowledge of the health care system, Medicare rights, and the action steps needed to obtain further information and exercise rights and protections; as well as changes in their perception of their role with respect to Medicare and their confidence in their ability to exercise rights and protections. Other methods, such as cognitive pretesting and focus groups might be useful in assessing the effectiveness of specific structural, formatting, and outreach designs. The results of these evaluations should be used to inform ongoing improvements to the communication strategies.

RECOMMENDATIONS SUMMARY

Our recommendations describe a layered communication strategy. It is founded on generating basic awareness of the availability of information about Medicare services in general, and rights and protections in particular, then branches out to provide information tailored to the needs and abilities of the individual beneficiary. At every layer, the strategy uses multiple channels and formats, and presents the message in environments that are familiar to the elderly. In every channel, messages are structured and formatted for elderly eyes, ears, and attention span.

The strategy takes account of the elderly's strong preference for dealing with real people, not voice mail systems or detailed written materials, and acknowledges their limited patience and stamina for maneuvering through a complex process. The strategy also acknowledges that a significant number of the elderly will need special assistance to help them act in their own behalf.

TABLES

Table 1. Knowledge About Right to Appeal by Frailty: 1996

	Elderly Medicare Beneficiaries	
	Non-Frail	Frail and Advanced Age[1]
You can appeal a Medicare decision.		
True	77	70*
False	2	2
Don't know	19	26
Would you know how to appeal if you wanted to?		
Yes	43	36*
No	58	64*
Sample size	6,639	4,178

* Difference significant at the $p < .05$ level.

[1] Defined as all beneficiaries age 85 or older and those beneficiaries age 65-84 reporting any functional limitation in activities of daily living (ADL) or instrumental activities of daily living (IADL).

Source: Health Care Financing Administration. Medicare Current Beneficiary Survey, 1996 Access to Care PR Online Supplements 17 and 18, 1998.

Table 2. Knowledge about Right to Appeal by Race/Ethnicity: 1996

	White	African American	Hispanic	Asian/ Pacific Islander	American Indian	Other
You can appeal a Medicare decision.						
True	77	60	55	67	61	54
False	2	4	4	4	4	0
Don't know	21	36	41	29	35	46
Would you know how to appeal if you wanted to?						
Yes	42	29	31	30	26	32
No	58	72	69	70	75	68
Sample size	11,002	1,413	845	103	141	26

Source: Health Care Financing Administration. Medicare Current Beneficiary Survey, 1996 Access to Care PR Online Supplements 17 and 18, 1998.

Table 3. Medium Through Which Enrollees Would Most Like to Receive Information About....: 1996

	Elderly Medicare Beneficiaries	
	Non-Frail	Frail Elderly and Advanced Age[1]
Services Medicare covers or does not cover		
Talking with someone in person	29	30
Talking with someone on the telephone (800 number)	14	13*
Brochure or pamphlet	27	23*
TV, radio, newspaper, magazine	4	4
Internet	0	0
Videos	1	1
Other	0	1
Doesn't want/need this information	24	28*
Don't know	0	1*
Availability and benefits of Medicare HMOS.....		
Talking with someone in person	16	15*
Talking with someone on the telephone (800 number)	6	5*
Brochure or pamphlet	14	12*
TV, radio, newspaper, magazine	2	2
Internet	0	0
Videos	0	0
Other	0	0
Doesn't want/need this information	61	65*
Don't know	0	1*
How much you would have to pay for medical services covered by Medicare...		
Talking with someone in person	24	27*
Talking with someone on the telephone (800 number)	16	13*
Brochure or pamphlet	17	15*
TV, radio, newspaper, magazine	1	2
Internet	0	0
Videos	0	0
Other	0	1
Doesn't want/need this information	40	42*
Don't know	1	1*
Sample size	6,535	4,090

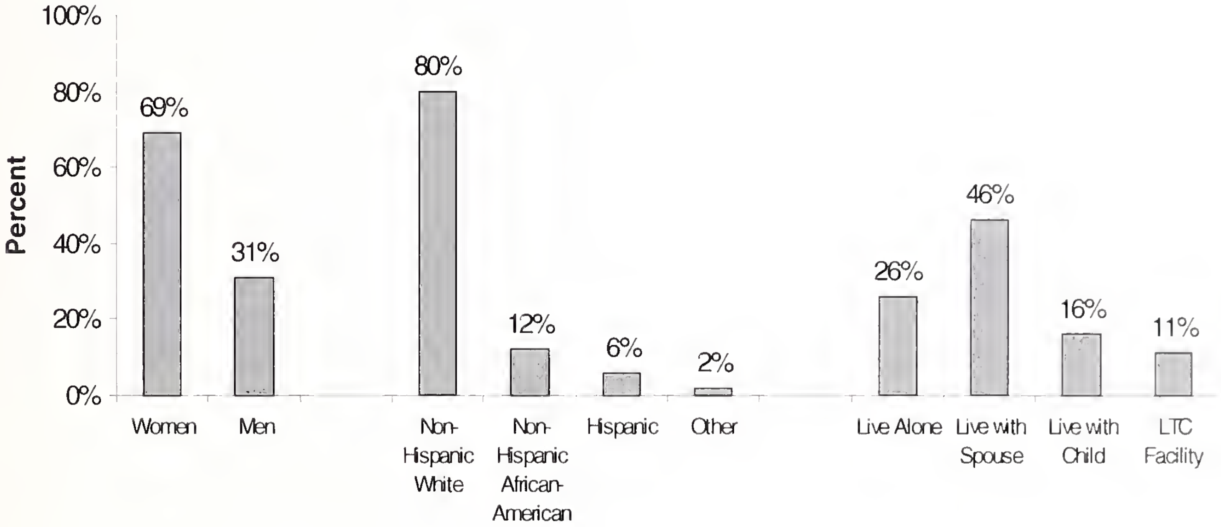
* Difference significant at the p < .05 level.

[1] Defined as all beneficiaries age 85 or older and those beneficiaries age 65-84 reporting any functional limitation in activities of daily living (ADL) or instrumental activities of daily living (IADL).

Source: Health Care Financing Administration. Medicare Current Beneficiary Survey, 1996 Access to Care PR Online Supplements 17 and 18, 1998.

FIGURES

Figure 1. Diversity within Frail and Over 85 Elderly: 1994



Source: Tabulations performed at RAND based on “1994 Health and Health Care of the Medicare Population” (Tables 1.2, 2.1 2.3, 2.5a, and 2.5b).

Figure 2A. Diversity within Elderly Age 65 and Over

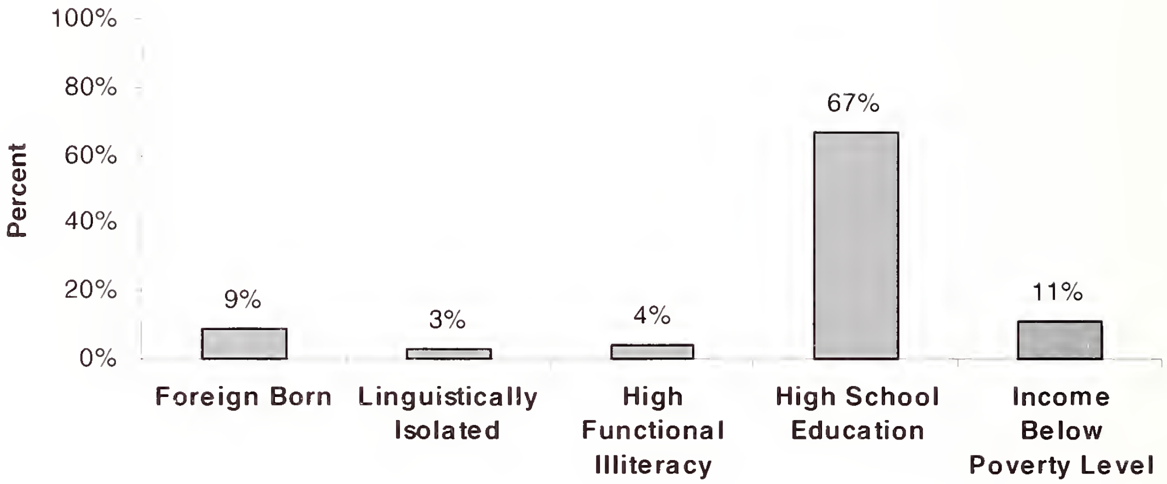


Figure 2B. Diversity within Elderly African-Americans Age 65 and Over

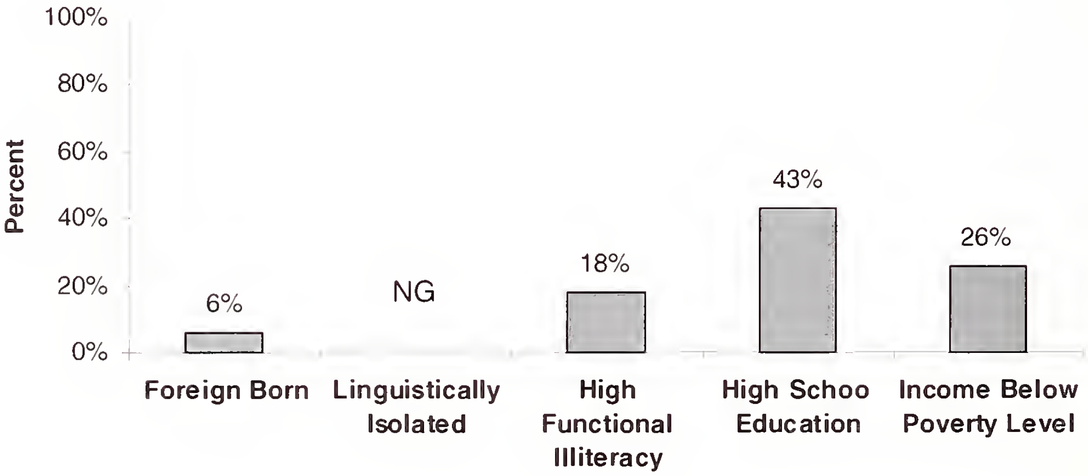


Figure 2C. Diversity within Elderly American Indian, Eskimo, and Aleut Age 65 and Over

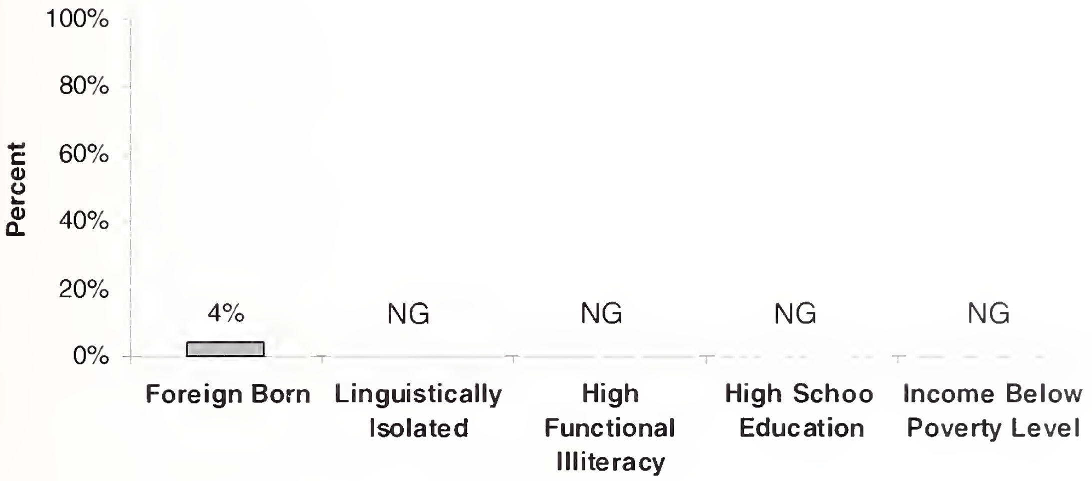
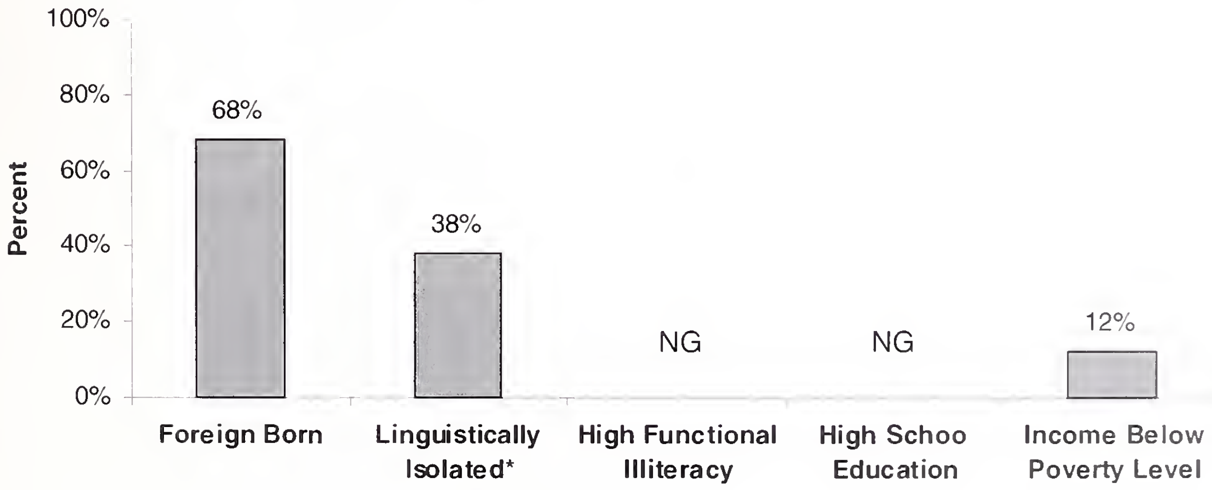
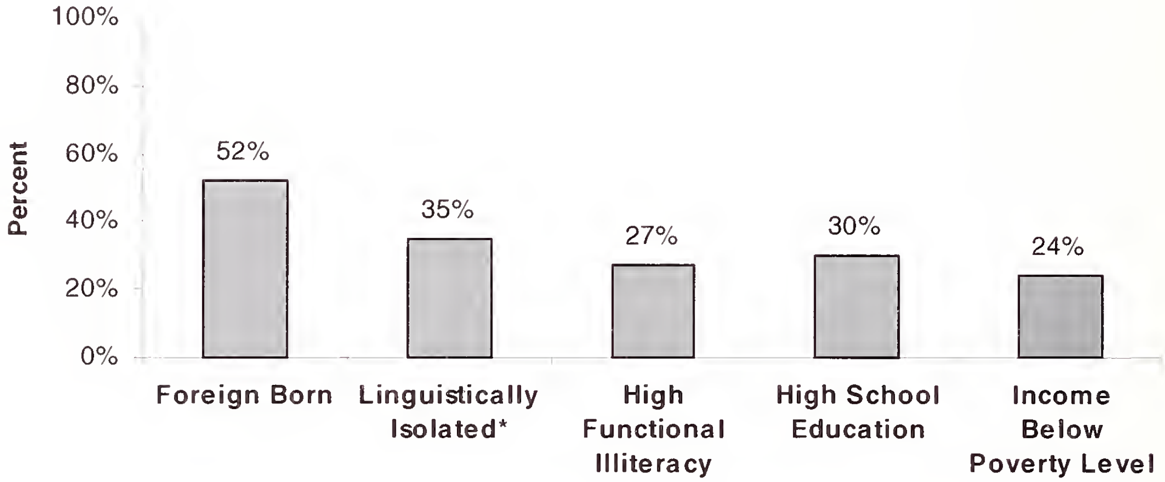


Figure 2D. Diversity within Elderly Asians and Pacific Islanders Age 65 and Over



* For those who speak an Asian or Pacific Islander language at home.

Figure 2E. Diversity within Elderly of Hispanic Origin Age 65 and Over



* For those who speak Spanish at home.

Sources for Figures 2A-2E:
Foreign-born: U.S. Bureau of the Census, Current Population Reports, series page 20, no. 450 (tables 6-8), and series PPL-92 (table 1) (1998) figures.
Linguistically Isolated: U.S. Bureau of the Census, 1990 Census Summary Tape File 3 (STF3) (database C90STF3C1) (1990 figures).
High Functional Illiteracy: U.S. Bureau of the Census, Current Population Reports, series P-20, no. 513 (table 1) (1998 figures). High functional illiteracy is defined in terms of four years or less of elementary education.
High School Education: U.S. Bureau of the Census, Current Population Reports, series P-20, no. 513 (table 1) (1998 figures).
Income Below Poverty Level: U.S. Bureau of the Census, Historical Poverty Tables -- People (1997 figures).

Figure 3A. Health and Impairment Burden in Elderly Age 65-84: 1994

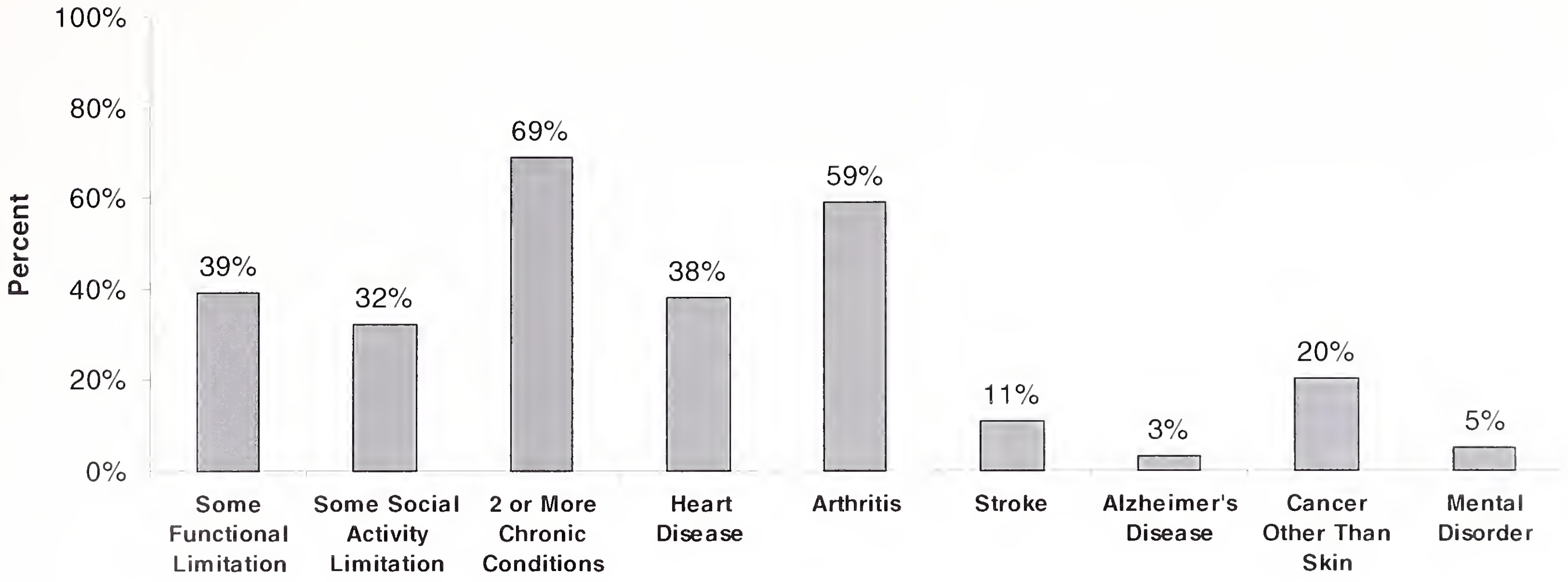
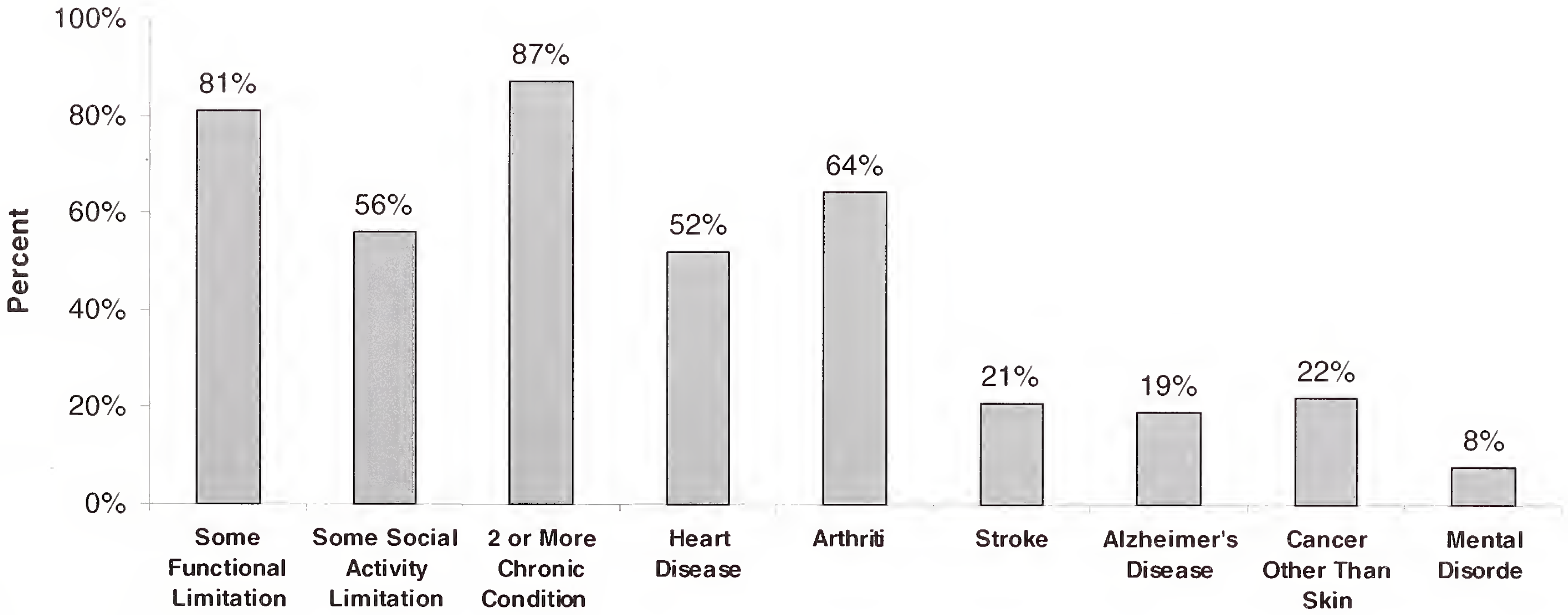


Figure 3B. Health and Impairment Burden in Elderly Age 85 and Over: 1994



Sources for Figures 3A and 3B: Tabulations performed at RAND based on "1994 Health and Health Care of the Medicare Population" (Tables 2.1 and 2.2)

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